CIVIL FUNCTIONS, DEPARTMENT OF THE ARMY, APPROPRIATIONS, 1952

WEDNESDAY, JULY 11, 1951

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The subcommittee met at 10:30 a. m., pursuant to recess, in room F-39, the Capitol, Hon. Kenneth McKellar (chairman), presiding.

Present: Senators McKellar, McClellan, Robertson, Young, Cordon, Holland, Stennis, and Cain.

CORPS OF ENGINEERS

RIVERS AND HARBORS PROGRAM

STATEMENT OF HON. WARREN G. MAGNUSON, A UNITED STATES SENATOR FROM THE STATE OF WASHINGTON

PACIFIC NORTHWEST POWER DEVELOPMENT PROJECTS

Chairman MCKELLAR. The subcommittee will come to order.

Senator Cain, will you proceed.

Senator CAIN. Mr. Chairman and gentlemen of the committee, we have a number of representatives from the Pacific Northwest here today who have some very important things to say for the consideration of all of us, but before that, sir, I would like to ask my colleague, Senator Magnuson, if he would not open today's hearing.

Senator MAGNUSON. Thank you.

Mr. Chairman, I want to be very brief today. As my colleague has pointed out, we have here in the room several witnesses who are very familiar with this entire situation, are vitally interested in it, and they represent, may I say, the whole Pacific Northwest. It is somewhat significant that these witnesses also represent all segments of population interested in this problem. That includes the rare thing which we have achieved in the Pacific Northwest of both private power and public power bodies pulling together for this development. The city light municipalities are also interested, the farm groups, the labor groups, and I just see coming in the door Dr. Raver of the Bonneville Power Administration. The Army engineers are here, the Defense Power Administration. In fact, I do not know of anyone who is in this room who has no direct or indirect interest in these projects.

I am sure that the committee will want to hear a little more, as my good friend from Oregon (Mr. Cordon) pointed out of the figures and technicalities involved. So I will make a very brief statement.

NORTHWEST PROJECTS AND INDUSTRIAL EXPANSION

I want to devote most of my time to a discussion, if I might, for a few moments, of the relationship between these Northwest projects and the national need for industrial expansion.

Chairman McKellar. Before you do that, will you state the names of the particular projects?

STATUS OF PROJECTS

Senator Magnuson. Yes, sir, I am about to do that. These individual projects which fit into this picture include the Chief Joseph Dam, Albeni Falls, McNary, Ice Harbor, and The Dalles Dam, five all told. Some of them are in the process of construction; others have been authorized.

Chairman McKellar. Has any work been done on them at all? Has any planning work been done?

Senator Magnuson. On all of them.

Chairman McKellar. Planning has been done on all of them?

Senator Magnuson. Three of them are in actual construction. For instance, on McNary construction is well under way. On Albeni Falls there has been considerable work. Chief Joseph has been on the way now for approximately 2 years.

NEED FOR INDUSTRIAL EXPANSION

Mr. Chairman, when this nation last June found itself confronting armed and flagrant Communist aggression, we likewise found ourselves confronting immediate and urgent need for expanding certain basic production capacity. Almost overnight we were forced from leisurely peacetime activity into a situation demanding both short- and long-range mobilization of defense resources. We were not actually in world war III but certainly we were on the brink.

Since the last shot was fired in World War II, international tension has been mounting. We have taken some halfway measures to prepare ourselves for these eventualities inherent in this situation. No one knew last summer, and no one knows now, what new dangers the future will bring. No one can foretell how long this Nation and the other free nations will be subjected to alternating periods of hot and cold wars. We do know, however, that if we are to remain free we must be strong and that to be strong we must increase our capacity to produce.

Best guesses are that we must gird our loins, so to speak, for a 5-, 10-, or 15-year period of international uncertainty, with periodic outbreaks of Communist aggression such as we confronted in Korea.

The role we must play in this period of international friction cannot be divorced from the problems and projects we are asking you to consider today. To maintain our leadership, we must plan soundly for the "long pull", as well as the "short pull". We cannot afford to endanger our freedom and our fortunes by planning for 3 years, when the situation confronting us demands planning for at least a decade.

It is not sufficient merely to meet the immediate crisis. Our antagonists are patient men. We must meet the long-term crises as well, if we are to achieve ultimate success. I ask you to keep this in mind as you listen to our testimony today.

Even before the blow fell on Korea, National Security Resources Board and other agencies of the executive branch had been formulating plans for just such an eventuality. Those plans included a bill of particulars, based on the best information available, showing the total need for such critical items as aluminum, steel, and so forth; additional plant capacity required to meet these needs; and the additional power required by such plants.

Of necessity, the agencies had to deal in estimates. To the best of my knowledge, however, no one has challenged those estimates as being in excess of national security requirements. Many of us here on the Hill have complained that we are "too late"—no one has complained that we have "too much."

ESTIMATES OF NATIONAL POWER NEED

The estimates of our national need for more power were incorporated in the President's budget for fiscal 1952 and were sent to the Congress last January. In his budget message, the President said:

> The only major new public-works projects included in the budget are those directly necessary to the defense effort. * * *
>
> Although long-range improvement of our river basins is essential for the continued economic strength of the country, in the fiscal year 1952 we must emphasize those aspects of the programs which primarily support the national defense. Immediately after the first attack in Korea, all Government agencies were directed to review their programs and to adjust them to meet urgent needs. Many of the river-basin projects contribute to defense as well as civilian industrial requirements through providing low-cost electric power in shortage areas. These projects are being pushed forward. * * *
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> Following a careful review of power requirements for the defense program, seven new projects, all which will provide substantial power benefits, are included in this budget. These new projects, together with the installation of additional power units in projects already under way and the related facilities required to transmit the power, are estimated to cost in total $1.5 billion and to provide 3.9 million kilowatts of installed capacity.
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> The projects are Hells Canyon, The Dalles, and Ice Harbor in the Columbia Basin, Old Hickory on the Cumberland River, a steam plant in the Tennessee Valley, Gavins Point on the Missouri River, and the St. Lawrence seaway and power project. These seven are the only new projects recommended for the river-basin programs, after an adjustment of the need.

CORPS OF ENGINEERS' REQUESTS

Chairman McKellar. Senator, if you do not mind my interrupting you right there, what are those that the Corps of Engineers wants to add?

Colonel Potter. In the President's budget this year, Senator McKellar, were The Dalles, a new start; Ice Harbor, a new start; Old Hickory, a new start; Gavins Point, a new start. That is in the Corps of Engineers budget.

Chairman McKellar. Have you planned these?

Colonel Potter. All of them are ready to start construction.

Chairman McKellar. How much money have you actually spent on each one? I do not mean the exact amount, but roughly how much money have you spent on planning?

PLANNING FUNDS EXPENDED TO DATE

Colonel Potter. On Old Hickory we have spent in the neighborhood of $212,000 planning that; on Gavins Point I would say we have spent in the neighborhood of $565,000; on Ice Harbor we have spent $862,000 planning it; on The Dalles we have spent in the neighborhood of about $516,000.

Chairman McKellar. As a matter of fact, before the war your organization probably recommended all these projects?

Colonel Potter. Yes, sir.

Senator Magnuson. You do recommend them?

Colonel Potter. Yes, sir; they are in our budget.

Albeni Falls is under construction.

Senator Magnuson. Albeni Falls is under construction; McNary Dam is 60 percent completed; Chief Joseph is probably about 20-percent completed.

Chairman McKellar. You may proceed.

Senator Magnuson. I am trying to point out the fact that all of the departments of Government have recommended these projects and have given the go-ahead sign to these projects not only for what they do to the natural development of the country but they are so vital and important to any defense effort or mobilization we may make.

STATEMENT IN ECONOMIC REPORT

In his economic report to Congress in January 1951 the President reemphasized the urgent necessity of pushing to completion The Dalles, Ice Harbor, Albeni Falls, McNary, and other key dams in the Pacific Northwest. I mention these projects particularly because together they represent the major portion of what we have come to call "the President's defense power package."

During the last 10 days, I have been in touch with Bureau of the Budget, Office of Defense Mobilization, Secretary of the Interior, Chief of the Army Engineers, and the White House on the matter we are discussing, and have every reason to believe that this committee will receive a request from the executive branch, asking for an opportunity to present in greater detail the urgency of restoring funds for most of the projects I have mentioned.

Without power we cannot achieve industrial expansion, and without industrial expansion, we cannot meet the responsibilities that confront us.

HOUSE ACTION

Mr. Chairman, I am always reluctant to criticize the House of Representatives. I served four terms in that body and know most of its Members are conscientious servants of the people. I cannot refrain from saying, however, that the House literally gutted the President's defense power package. If the House recognized that we confront an emergency, they failed to act accordingly.

ALBENI FALLS, WASH.

Here is the record:

The House eliminated all funds for Albeni Falls. The President had requested $10 million to keep this project on schedule; $2,900,000 was appropriated last year to start construction. By August 1952 storage features of the dam will be completed and, as a direct result thereof, over 100,000 kilowatts of new energy will be firmed up at downstream dams.

M'NARY LOCK AND DAM, WASH.

The House cut $6,900,000 from the $42,900,000 requested for McNary Dam, a dam that is 60-percent completed, that is so vital for the Pacific Northwest in the power picture that it has been recommended over and over again as to the urgency of it, and unless this is restored the Army engineers cannot meet their schedule.

Chairman McKellar. Will you be good enough to give us the location of McNary Dam on the map?

Senator Magnuson. McNary Dam is right there near the mouth of the Snake River. It is on the border between Washington and Oregon.

The first power from McNary Dam is due to come on the line in December 1953 and that is what all the reports say is the vital time that we will need this extra power from McNary Dam. The House cut out $6,900,000 from the $42,900,000 requested.

THE DALLES LOCK AND DAM, WASH.

The House cut out entirely the $18,000,000 requested for The Dalles, although that has been recommended by everyone time and time again as part of this power package. Ostensibly, this action was taken because Indian fishing rights at Celilo Falls are in controversy. All the House Members from the State of Washington are here, many of the delegation from Oregon, and the Senators from Idaho, and they are familiar with this picture. The fishing rights are a very minor matter compared to the importance of this dam.

ICE HARBOR LOCK AND DAM, WASH.

The House eliminated entirely the $4 million requested to place Ice Harbor Dam under construction. Here the excuse is that the fishing industry objects to the construction of this dam.

Chairman McKellar. Is there a budget estimate for those two?

Senator Magnuson. Yes; there is a budget estimate for all five of these and the budget will be here to testify.

SECTIONAL VERSUS NATIONAL INTEREST

Gentlemen, if we wait to start a hydroelectric dam until every single individual and faction is satisfied, there will never be any more dams on any power-producing streams in this country. You can always find someone who will object. There were objectors to Grand Coulee Dam. There were objectors to Bonneville Dam. There will always be objectors. There were objectors to the Tennessee project.

The question this committee has to decide is whether the general good is more importantt han the objections of a small minority. The question is whether the national requirement for more power to meet defense needs is overriding. I believe it is.

Unless this committee and the Congress is prepared to say that the 2½ million kilowatts represented by these dams is unessential to national defense, these funds should be restored.

Chairman McKellar. I want to ask you this question, if I may. To what extent is there need at this time for this power in the States of Washington, Oregon, and Idaho?

Senator Magnuson. I think the Defense Power Administration, who is represented here today, can give you the exact figures. Everyone here of course agrees that the power situation in our section is critical.

Chairman McKellar. By that you mean that you are short of power?

NEED FOR POWER IN NORTHWEST

Senator Magnuson. Short of power. We have a chance of having a brown-out this fall, and on top of that they are putting in more aluminum plants in our area for the defense needs which take a great amount of power.

I want to put in the record another factor. Here is a letter written to Dr. Raver by the Hanford atomic energy plant, which is also in the area, right north of McNary Dam, right up in there [indicating].

Chairman McKellar. About how far?

Senator Magnuson. Approximately 30 or 40 miles.

Here is a letter in which they deplore the fact that we had a power shortage last year and a let-down, in which they say that if it happened again you would probably have to shut down the most important plant in the United States for defense. That letter speaks for itself.

Senator McKellar. If you have time, suppose you read that letter. It is not long?

Senator Magnuson. It is not very long. I can skip most of it.

Senator McKellar. Read the salient points of it.

POWER BREAKDOWN AT HANFORD WORKS, WASHINGTON

Senator Magnuson. This is from David F. Shaw, the manager of the Hanford Atomic Energy plant:

On June 6, 1950, the most serious electric power outage experienced to date by the Hanford works occurred from a general system breakdown of the entire Bonneville system. In reviewing with your engineers the circumstances which could bring about this kind of occurrence, we have become convinced that the best way to protect the Hanford project from interruption of production by this kind of electric service failure is to provide the project with a source of generation which could be separated by automatic relays and switches from the rest of the Bonneville power system at times of system failure.

Chairman McKellar. That was before Korea?

Senator Magnuson. Yes.

It appears to us that this could best be achieved by a special connection (not through the Midway substation) with a nearby source of generation, such as any one of the dams on the lower Snake River,

for which we have asked funds. Then he goes on. I will put the entire letter in the record.

Chairman McKellar. Without objection, the letter may be placed in the record.

(The letter referred to is as follows:)

United States Atomic Energy Commission,
Hanford Operations Office,
Richland, Wash., August 29, 1950.

Subject: Electric service to Hanford works, United States Atomic Energy Commission.

Dr. Paul J. Raver,
Administrator, Bonneville Power Administration,
Portland 8, Oreg.

Dear Dr. Raver: Special provision for the quality of electric service furnished to this project was originally provided in an order of the War Production Board dated November 1, 1944. The extreme importance of the quality of the electric service furnished to the Hanford works of the Atomic Energy Commission has been reemphasized particularly by the following correspondence:

Letter from Acting Chairman Pike to Secretary Krug of October 30, 1947, and the reply to Mr. Pike from Acting Secretary Chapman dated November 5, 1947.

Letter of February 9, 1948, from Carleton Shugg, manager, Hanford Operations Office, to Dr. Raver, and the reply thereto from Mr. Marlett to Mr. Shugg dated February 20, 1948.

Letter of April 16, 1948, from Mr. Shugg to Dr. Raver and reply of April 28, 1948, from Mr. Marlett to Mr. Shugg.

Letter of August 25, 1948, Mr. Shaw to Dr. Raver, and reply of November 19, 1948, from Mr. Schultz to Mr. Shaw.

Because of the larger number of plants which are now in operation at the Hanford works and because of the increasing importance of the production commitments for which the Hanford works is responsible in meeting the requirements of the atomic weapons program, the quality of electric service for the Hanford works is of greater importance today than ever before. From the standpoint of national security, continuity of operations at this project demands that every reasonable step be taken to insure the continuity and quality of electric service.

On June 6, 1950, the most serious electric power outage experienced to date by the Hanford works occurred from a general system breakdown of the entire Bonneville system. In reviewing with your engineers the circumstances which could bring about this kind of occurrence, we have become convinced that the best way to protect the Hanford project from interruption of production by this kind of electric service failure is to provide the project with a source of generation which could be separated by automatic relays and switches from the rest of the Bonneville power system at times of system failure. It appears to us that this could best be achieved by a special connection (not through the Midway substation) with a nearby source of generation, such as any one of the dams on the lower Snake River, which we understand to be under consideration. We would not presume to recommend specifically as to which would be most desirable of the several projects which we understand to be pending within a sufficiently short radius of the Hanford works.

You will recall that in our letter to you of April 16, 1948, we requested that you consider supplying this project with 230 kilovolt power from sources and through transmission systems independent of Midway. In view of the experience obtained since that time, we would like to make a firm recommendation that such a separate source and transmission system be provided, and we urge that it be provided as speedily as possible.

Very truly yours,

David F. Shaw, *Manager.*

LETTER FROM DEFENSE POWER ADMINISTRATOR IN REFERENCE TO NORTHWEST POWER PROJECTS

Senator MAGNUSON. I also wish to place in the record a letter which was written this year, June 27, by the Defense Power Administration to Senator Carl Hayden, chairman of the Interior Subcommittee, in which they point out, and I quote just one small paragraph:

In the Pacific Northwest, however, the power supply situation is critical and will remain so until some of the larger unauthorized hydro projects can be constructed and placed in operation, probably in 1955 or 1956.

Now that is what they think about it.

Chairman MCKELLAR. Without objection, that letter will be placed in the record at this point.

(The letter referred to is as follows:)

JUNE 22, 1951.

Hon. CARL HAYDEN,
Chairman, Department of the Interior Subcommittee,
Senate Appropriations Committee,
United States Senate, Washington 25, D. C.

MY DEAR SENATOR HAYDEN: Defense Electric Power Administration is greatly concerned over the cuts in appropriations which the House committee made affecting the power supply in the Pacific Northwest. Unless these cuts can be restored in the Senate, the critical and unsatisfactory electric-power situation in the Pacific Northwest will become even more serious and vital production of defense materials in this region cannot be obtained because of an inadequate electric-power supply. This opinion in concurred in by practically everyone who is familiar with the situation.

In the Pacific Northwest, however, the power-supply situation is critical and will remain so until some of the larger unauthorized hydro projects can be constructed and placed in operation, probably in 1955 or 1956.

Even under median water conditions, the power-supply situation will remain critical at least through the 1953–54 storage-control period unless projects now under construction can be completed on schedule and construction of some of the projects which can be brought into service in a comparatively short time can begin in the near future and be constructed on an expedited schedule. Specifically the Pelton and Cowlitz projects which are now before the Federal Power Commission for licensing and can be constructed in 2 years, would materially improve the power situation before the 1953–54 storage-control period and license to permit proceeding with their construction should be granted. To prevent the power situation from deteriorating to any greater extent, projects now under construction, such as Albeni Falls, McNary, and Chief Joseph must be maintained on schedule.

In order to restore capacity in the Pacific Northwest to an amount which will be sufficient to meet capacity requirements subsequent to the 1953–54 period, appropriations for new projects not yet authorized must be obtained at an early date and it will be necessary to continue the new starts in the future in order to maintain a satisfactory power situation in the Pacific Northwest after a reasonable balance between load and capacity is once obtained.

In the opinion of the Defense Electric Power Administration the Federal projects most necessary for an early start are The Dalles, the Palisades, Ice Harbor and some additional storage on the upper reaches or tributaries of the Columbia River.

Even though a satisfactory program can be authorized which will provide an adequate supply of power in the Pacific Northwest, this program can be completely upset if Defense Production Administration continues to deny the electric power industry a satisfactory share of materials as it did in the third quarter of 1951.

I should be glad to discuss this situation in more detail with you at your convenience.

Very truly yours,

CLIFFORD B. MCMANUS,
Administrator.

COMMUNICATIONS IN REFERENCE TO ICE HARBOR, THE DALLES, AND ALBENI FALLS PROJECTS, WASH.

Senator MAGNUSON. Mr. Chairman, may I insert in the record a resolution from the Pasco Chamber of Commerce, a wire from the Secretary of the Washington State Building Trades, and also some comments from Mr. Fred Wolf, of Newport, Wash., containing some astounding facts and figures on the Albeni Falls project?

Chairman MCKELLAR. Without objection those will be placed in the record.

Mr. MAGNUSON. Congressman Henry Jackson could not stay here this morning. He is in a conference with the Secretary of Interior, involving an aluminum and an alumina plant for the Pacific Northwest. He has asked me to state that he associates himself with the testimony we have presented.

(The material referred to is as follows:)

RESOLUTION REGARDING ICE HARBOR AND THE DALLES DAMS

Whereas hydroelectric power in tremendous quantities is the chief contribution of the Northwest to the national economy in war or peace, and this power contributed in large measure to the victory of the democratic peoples in World War II, and due to industrial and agricultural development and a sharp increase in population the existing power generating facilities have been burdened to such an extent that power is being allocated and certain new industries have been unable to locate in the area because of a power shortage; and

Whereas this country is now engaged in a stepped-up defense program and all-out war is a definite possibility, and additional power facilities are badly needed for the defense effort and would be absolutely essential in the event of war; and

Whereas engineering and planning for Ice Harbor and The Dalles Dams are complete and construction can be started immediately upon appropriation of funds; and

Whereas the cost of these dams will be an investment that will be returned to the Government with interest through the earning capacity of these facilities and will also be returned to the Nation many times over through development of industry, agriculture, and commerce; and

Whereas it is the firm belief of this body that the advantages to be gained by the Nation from the construction of these projects, particularly in this time of national peril, far outweigh any possible adverse effect on the fishing industry or any other industry: Now therefore be it

Resolved, That the board of directors of the Pasco Chamber of Commerce unreservedly urge immediate appropriation of funds for the construction of Ice Harbor and The Dalles Dams; and be it further

Resolved, That a copy of this resolution be sent to each of the following: Senator Kenneth McKellar, chairman of the Senate Appropriations Committee; Representative Clarence Cannon, chairman of the House Appropriations Committee; Governor Langlie, Holland Houston, Senators Cain and Magnuson, and Representatives Holmes, Mitchell, Jackson, Mack, Horan, and Tollefson.

Adopted by the board of directors of the Pasco Chamber of Commerce, July 7, 1951.

C. S. CHURCHMAN, *President*,
CHARLES BRINKERHOFF, *Manager*.

SPOKANE, WASH., *July 7, 1951*.

Hon. WARREN G. MAGNUSON,
Senate Office Bldg., Washington, D. C.:

The building trades section of the Washington State Federation of Labor representing more than one hundred twenty-five thousand building and construction men request your support for the appropriation of the Ice Harbor Dam to be built on Snake River, Franklin County, Wash.

WASHINGTON STATE BUILDING TRADES,
HARRY J. AMES, *Executive Secretary*.

COMMENTS ON HOUSE WITHDRAWAL OF ALL FUNDS FOR ALBENI FALLS DAM DURING FISCAL YEAR 1952

From the viewpoint of public and general local interest there seems to be a lack of information concerning the present status of the Albeni Falls project. This is due in a large part to preparatory work for a rapid concrete placement schedule during the relatively short summer season. For the last 4 months the greatest activity has been in preparatory work, such as purchasing and laying down shop orders. In this scheduling, much money has been spent.

1. The second stage contractor has processed 40 percent of the sand and gravel required for the spillway dam. The high line for delivery of concrete is in place from the newly completed batch plant on the north shore to the central island.

2. Ninety percent of the foundation is exposed to grade but will require approximately 2 weeks of "dental work", that is filling of cracks and indentations with concrete before mass placement of concrete can commence.

3. Items to be embedded, such as the de-icing system, all are under manufacture, as well as the gates and their accessories. Officials of Donovan-Jones Co. state that they spent $1,250,000 or have definitely committed the company for this amount and in addition they have earned $225,000 in contract performance to date. They will suffer considerable damage if stopped.

Public opinion is of the almost unanimous sentiment that the river should be restored to its original characteristics if the work is stopped at this point. This would be next to impossible, since 160,000 cubic yards of rock have been removed from the North, Middle, and South Falls. The only possible way to continue the river in its upstream and downstream hydraulic behavior is by completing the Spillway Dam.

To not provide controls for the newly opened channel would expose the Cusick area to immediate and extensive flood damage. The effects resulting in claims from uncontrolled draw down of the river may prove quite extensive.

The operations of the Diamond Match Co. and their large holdings below the Falls would suffer considerable damage because they could not operate booming yards during high-water periods.

This is not a case of "sending good money after bad," but rather by spending the remainder of the second stage contract commitment for a total of $3,840,000. There will be returned approximately $5,000,000 in the next 2 years from prime power added to Grand Coulee and Bonneville. This return is quick, that is, 1953, and 1954. In addition, this storage is urgently needed for those winter months of low-water flow when we have the peak power loads. It is remembered that brown-outs are the order of the nights during December, January, February, and part of March in the Northwest.

The first stage contractor worked 24 hours a day, 7 days a week, through January and February, March and April to do his part to relieve this situation.

The second stage contractor is also geared up for accelerated work if his is given the chance to go ahead.

Considerable private capital has been invested locally to house the workers, since no funds for public housing were included in the project. To stop dam construction now would be unfair to those who provided housing in good faith at request of public officials. The fact that no Government housing was provided for has been an added benefit to the cost to Government ratio seldom enjoyed on similar projects.

In summary to stop this work now would result in the following damage:

(*a*) Leave the Government in an awkward position with direct responsibility for creating a flood hazard.

(*b*) Effects of abnormal draw-down on upstream developments, both on the Pend Oreille River and Pend Oreille Lake.

(*c*) Acting in bad faith concerning private housing developments.

(*d*) Loss of $5,000,000 revenue from storage benefits during the next 2 years.

(*e*) Waste due to cancellation of orders on critical material, such as stainless-steel gate guides, which would be unreasonable during these days of shortages.

Therefore, with the national economy as well as defense in mind, the completion of this dam to the point where storage will be realized in the summer of 1952, offers the cheapest and most rapid power development in the Northwest and probably in the world.

The restoration of the approved budget estimate of $10,000,000 will enable completion of the project to the stage of beneficial use of full storage of 1,140,000 acre-feet.

FRED WOLF, *Newport, Wash.*

STRONG SUPPORT FOR PROJECTS

Senator MAGNUSON. I would like the record to show that Congressman Holmes is here in support of this from one of the areas of which we are speaking. He has placed a strong statement in the record. Congressman Horan is here, Congressman Jackson, who participated in this fight in the House, a member of the Appropriations Committee, Congressman Mitchell, and every single Congressman in the State of Washington, and I am sure most of them in the State of Oregon. I have not spoken for them; I cannot speak for them.

We are all representatives of private power, public power, municipalities that are all afraid of the fact that if we do not go ahead, we are not only going to have a brown-out, we are going to nullify the defense effort in the Pacific Northwest which everyone agrees is most vital to the Nation.

One thing is vitally important. On top of all this, these projects are all reimbursable, the Government gets every dime back.

Chairman MCKELLAR. Are there any questions that any of you gentlemen would like to ask the Senator before he leaves?

Senator MAGNUSON. Senator Cain has a list of the witnesses. I appreciate this opportunity to appear before your committee.

Chairman MCKELLAR. We are much obliged to you, Senator.

We will now take the next witness.

Senator CAIN. Mr. Chairman, it is good to have the Senators from Idaho this morning. I wonder if Senator Dworshak would care to comment on this project.

STATEMENT OF HON. HENRY C. DWORSHAK, A UNITED STATES SENATOR FROM THE STATE OF IDAHO

ALBENI FALLS PROJECT, WASHINGTON-IDAHO

Senator DWORSHAK. Mr. Chairman, I am attending this hearing because of my profound interest in accelerating the water-resource program in the Columbia River Basin. It seems to me difficult to reconcile the needs for additional power in that area with the action taken by the House recently in the deletion of funds for various projects. At a time when the President is requesting an over-all budget of about $60 billion for national preparedness, one would naturally assume that the expenditure of a few millions of dollars for accelerated construction of some of these power generating projects would be vitally important to National preparedness.

Mr. Chairman, I have here a copy of a telegram sent by Governor Jordan of Idaho to you as chairman of the Appropriations subcommittee. I should like to read that. It is dated July 9, 1951, at Boise:

DEFENSE NEEDS PROJECTS

National defense agencies agree additional power essential to national defense effort. This power could be available in the Pacific Northwest. State of Idaho urges your committee to approve the appropriation for $17,390,000 for Chief Joseph Dam, $42,900, for McNary Dam, and $10,000,000 for Albeni Falls Dam, to keep these projects and speed up the program. We also urge the appropriation of $4,000,000 for initiation of construction of Ice Harbor Dam. Planning and design complete for Ice Harbor and construction can start at once. These projects essential to national emergency and peacetime economy. All above projects

approved by the Bureau of the Budget and recommended by the President of the United States.

I also have a brief telegram of the same date, July 9, 1951, addressed to you by the Chamber of Commerce at Lewiston, Idaho:

Lewiston, Idaho, Chamber of Commerce urges your consideration of recommendation made by Governor of Idaho concerning appropriations for the dam projects as outlined in his telegram to you of July 9, 1951. Projects recommended would be considered essential to national emergency as well as peacetime economy.

ALBENI FALLS DAM, WASH.

Mr. Chairman, I first want to stress the importance of providing some funds with which to continue construction of the Albeni Falls Dam. A year ago $2,900,000 was made available and, as I recall, last October construction was started on Albeni Falls. It is on the Idaho-Washington border.

Chairman McKellar. Is that correct?

Colonel Potter. Yes, sir. I have a picture of the status of construction at the present time, if the chairman desires to see it.

Chairman McKellar. Go ahead, Senator.

Senator Dworshak. To stop the construction of that dam at this time is extremely difficult for me to comprehend. If a dam were necessary and an appropriation was made a year ago with which to initiate construction, then certainly nothing has developed in the interim except of a favorable nature which would indicate that construction should not only be continued but be accelerated, as has been requested by the Bureau of the Budget.

Chairman McKellar. You have been a Member of the House, Senator, so what reason did the House give for it?

Senator Dworshak. Well, I am reluctant to make any comments except to say that I share wholeheartedly the sincere desire of the House of Representatives for economy at a time when we are facing a critical preparedness program and the possibility or the necessity, you might say, of additional taxes; but under the circumstances and as I already have indicated, in the face of $60 billion for our Armed Forces, I cannot justify the elimination of a few millions of dollars for accelerating construction of these dams which provide electric power that is a very vital part of our national defense.

CUTS DUE TO WISH FOR ECONOMY

I am inclined to think that in their zeal for economy and for reductions in the appropriation bills these cuts were made. I am sure that if the Members of the House were fully advised as to the circumstances and understood that their action might delay the construction of these vitally important power generating dams, then certainly they would go along and authorize expenditure of a few millions of dollars for these dams even if it were necessary to cut down elsewhere. I know that a few million dollars expended on these dams in the Columbia River Basin would bring greater results from a national defense standpoint than would the spending of a comparable amount for some other part of our $60 billion preparedness program.

That is the way it appears to me, and I am sure that the House of Representatives would display good judgment, as it generally does, and reconsider its action if it knew what the actual facts were.

Chairman McKellar. Senator, what you say reminds me of what I used to contend with in the House of Representatives in 1912, 1913, and 1914.

Senator Dworshak. They did not make any cuts then?

Chairman McKellar. Well, they were awfully good to me, I will say that. It took us a long time to convince them, but they came across and the project in Tennessee was started. I was just like you, but I did not say it half as well as you are saying it now.

Senator Dworshak. Thank you.

I want to reiterate that when we face the necessity of spending billions of dollars for the over-all national defense program, that certainly the expenditure of a few millions for this phase of the program seems entirely justified.

FISCAL PROBLEMS FACING COMMITTEE

Senator McClellan. Here is what we are confronted with, if I may interrupt. They do not all compare in merit and value to this, but we just have those projects all over the Nation. I have them in my State. I have to come in here and present a matter tomorrow, not a new project, but trying to protect what the Government has already constructed and invested in. I cannot get a budget estimate for it. We are all confronted with this same problem.

Senator Dworshak. Senator, I can share your concern. I realize the problems confronting the Members of Congress not solely as to their individual projects but as to the over-all program, but budget requests have been made available, and construction is in progress on these projects.

Senator McClellan. You have a budget estimate for this?

Senator Dworshak. We have a budget estimate for this. In other words, it is in the budget.

Senator McClellan. That is what I understood from Senator Magnuson.

POWER SHORTAGE

Senator Dworshak. I should like to point out also that if there is a shortage—potential shortage—of power in the Columbia River Basin where are located many of the aluminum plants and other war industries and airplane factories, then it would appear poor economy to appropriate billions of dollars for some of the essential planes and munitions and military equipment, if we deny those plants the electric power which is so vital in making available what is necessary to carry on our preparedness program.

Senator McClellan. I got in a little late and did not get the opening of this testimony. Are these new starts or are they projects that are in the course of construction?

Senator Magnuson. Three of them are in the course of construction and two of them are new starts, but planning money has been spent.

Senator McClellan. I would like to say in addition to that, I have gone along with the administration, and I thought wisely so, and patriotically so, in not making new starts, but where a project is under construction and you already have the momentum on the

project, I just cannot see any good sense in stopping it. I just cannot see it.

Senator DWORSHAK. Senator, I was specifically referring to Albeni Falls Dam.

INITIAL CONSTRUCTION PHASE ON ALBENI FALLS DAM

Senator MCCLELLAN. From this photograph that I have here I do not see that any particular start has been made on that.

Senator DWORSHAK. The total estimated cost of the project is $31,000,000. Allotments to date are $2,900,000, and, as I recall, last October actual construction of that dam was started.

Chairman MCKELLAR. They have made a contract?

Senator DWORSHAK. Yes; the contractors moved in and they started actual work last October.

Senator MAGNUSON. If they do not get this money, the engineers will tell you they will have to pay off the contractors under a continuing contract and it will cost us more when we go back.

1951 APPROPRIATION

Senator DWORSHAK. The point I am stressing is that a year ago when Congress appropriated $2,900,000 to start construction, the picture at that time was not as clear as it is today for the need of providing additional power. I agree with you it is questionable whether new projects should be started, but certainly when a project like Albeni Falls Dam was started last October and about $3,000,000 has been expended and the Bureau of the Budget and the Army engineers asked for $10,000,000 with which to continue construction in order to provide storage to increase production of power in the lower river dams, like Grand Coulee and Bonneville, and to provide the generation of about 43,000 kilowatts of power at Albeni Falls, that the whole picture seems so clear that it is difficult to understand why a year ago they wanted to go ahead and now they want to hold back when the entire world situation has become more complex since that time.

Senator MCCLELLAN. As I understand it, nobody is wanting to hold back except the House of Representatives. I understand the budget has recommended that.

Senator MAGNUSON. I would not include the whole House of Representatives; I would include a very small number of about four members of the Appropriations Committee.

Chairman MCKELLAR. Senator, you are inclined to think that the Members of the House from Oregon, Washington, and Idaho rather favor these projects?

Senator DWORSHAK. This particular dam about which I am speaking?

Chairman MCKELLAR. Yes.

Senator DWORSHAK. Mr. Chairman, I would say that the large majority of the Members of the House from all the States would probably be wholeheartedly in favor of continuing this work, because that power is to be generated not for the particular benefit of the Columbia River States but for the entire Nation and its preparedness program.

STATEMENT OF HON. WALT HORAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

ALBENI FALLS DAM, WASH.

Representative HORAN. I am a member of the Appropriations Committee of the House that prepared the bill before you. I am not a member of the subcommittee that managed this bill. I opposed several items in this bill when it was before the full committee and, again, later on the floor. I think it is well, though, for your committee to understand that the report and the action of the House Subcommittee on Civil Functions was unanimous. I never saw preparation for such action as was carried on by the clerks of the subcommittee over there. I happened to even see the rebuttal sheet they had prepared in case I offered an amendment to restore Albeni Falls.

I will say this, that they approached Albeni Falls from the standpoint of 99.2 percent power dam, whereas it is practically entirely a storage dam impounding by August of next year a little over 1,140,000 acre-feet of water, which by August of next year would mean downriver benefits of over 100,000 kilowatts. Not only have we expended $2,900,000 on Albeni Falls but we have also made commitments that at least would be embarrassing to the Army engineers of between $9,000,000 and $10,000,000, based upon the good intentions of Congress when the Korean outbreak occurred and when it was apparent that we needed to have more power and quickly, because so much of our industrial activity out there that has been brought about by the defense effort is on an interruptible basis as far as power supply is concerned. In other words, what we need is to impound water in the higher reaches of the Columbia River and its tributaries, 74 of them.

PURPOSE OF PROJECT

Senator MCCLELLAN. Do I understand that the purpose of this dam is to impound water to be used to make power at another dam?

Representative HORAN. Exactly, on existing facilities downstream today. The firm power that Albeni Falls would deliver downstream, because of the impounded water would produce between 100,000 and 110,000 kilowatts. On those that are under construction and planned that total, because of the existence of Albeni Falls, would rise within the next 5 or 6 years to an amount in the region of 150,000 kilowatts, as I understand it. So you see by impounding the water at the higher levels you enhance the firm power situation down below.

Now next year we are going to have 599,000 kilowatts in use on an interruptible basis, making aluminum and other materials for the war effort. The year after that we will have 596,000 kilowatts of interruptible power upon which firm contracts and firm industries are established. We need these dams that are in the Army engineers' budget. We need to complete those that are under way, such as Albeni Falls, and the others.

Senator MCCLELLAN. In other words, this particular dam, Albeni Falls, actually amounts to a facility to firm up power and increase the power production?

Senator MAGNUSON. Like the Tennessee steam plant.

Senator DWORSHAK. It generates 43,000 kilowatts at the site of that dam.

Representative HORAN. It will, but those facilities will not come in until 1954. The major reason for Albeni Falls is that by August of next year we will have this power, which is an enormous amount. 100,000 kilowatts is a lot of electricity. We will have it by August of next year. Then they will put in generation plants and we will have additional power by reason of the existence of Albeni Falls. The biggest asset is the storage, 1,140,000 acre feet.

Not only that, but Hungry Horse Dam in Montana, clear to the right of the sheet, and almost to the Canadian border, will bring in 3½ million acre-feet of storage water and will greatly enhance the down-river potential of the Columbia River.

I wanted to say this, Mr. Chairman. I did not want to interrupt, but we were talking about Albeni Falls and I knew something about it and could contribute something. There are three members of our delegation who are not here but they are attending the executive sessions on the St. Lawrence waterway bill before the House Committee on Public Works, Mr. Angell of Oregon, Mr. Mack of Washington and Mr. Wood of Idaho. They wanted the committee to know that that is the reason they are not here.

Now, Mr. Chairman, we did not offer an amendment on the floor of the House because no amendments to increase the civil functions bill there carried. I never saw a committee so efficient on the floor to carry out their judgment, which they had put into effect when they wrote up the bill, because they opposed every amendment and did a good job, and there was cooperation on both sides of the aisle. It was apparent that we could not win our point there and we did not want to prejudice what we thought was an awfully good case. So we made a statement on the floor of the House and we are here this morning to beg this committee to do what in my judgment is the reasonable and the justifiable and the sensible thing to do, and to see if we cannot work out a better program later, in conference.

Senator MCCLELLAN. Am I right about this, Congressman, you are not asking for anyting that is not in the budget?

Representative HORAN. We are asking for the budget, and that is all.

Senator ROBERTSON. May I ask the distinguished Representative a question?

Chairman MCKELLAR. Wait a minute, Senator Robertson. The Congressman is talking on the time of the Senator from Idaho.

Senator DWORSHAK. That is all right, it is on Albeni Falls. Thank you very much. It is all on the same subject.

Senator ROBERTSON. Under the House bill the State of Washington gets $17,000,000 and Oregon gets $36,000,000, which is more than one-half the total fund. If the States can hold that on the Senate side, would you not be reasonably satisfied?

Representative HORAN. We will be satisfied with any action of the Senate that we think is in the interest of good judgment and national defense and the development of one of the Nation's greatest assets. We happen to live out in the area drained by the Columbia River, the greatest river in the world.

Senator ROBERTSON. I understand from the standpoint of apple competition it is pretty good.

Representative HORAN. Yes, sir, it is. However, we merely hold the stewardship over the Columbia River. It is a national asset and recognized as such.

Thank you, Mr. Chairman. That is all I have to say. I would like to submit my statement, if I can.

Chairman MCKELLAR. Your statement will be placed in the record at the end of Senator Dworshak's remarks.

ICE HARBOR LOCK AND DAM, WASHINGTON

Senator DWORSHAK. Mr. Chairman, I shall not go into much detail on the remainder of the projects. I merely want to point out that a year ago you were kind enough, with the approval of the Senate, to include funds in an appropriation bill with which to start construction of Ice Harbor, the project which had been requested by the Army engineers and by the Bureau of the Budget. That was deleted in the conference, as I recall, and the funds transferred to some other project.

Senator ROBERTSON. Would you yield there?

Senator DWORSHAK. Yes.

Senator ROBERTSON. The report said the reason they eliminated Ice Harbor was because investigation by the Fish and Wild Life Service of the salmon industry there showed that this dam would destroy that industry and it would therefore be a very uneconomical proposition.

RIVER BASIN STUDIES

That is one reason. If we are going to keep on building dams, then Senator Cordon and I think we should keep on investigating what effect they are going to have on the wild life resources, but the Senate eliminated the $200,000-odd for the river basin studies.

Senator DWORSHAK. Senator Robertson, so far as I am concerned I am willing to leave the technical details to the Army engineers. It is my understanding that Ice Harbor lock and dam have been projected upon the basis that no damage will result to the salmon industry in the Northwest.

Senator ROBERTSON. According to the official report of both the State agencies and Federal agencies concerned with the preservation of the salmon industry. It is a $100,000,000 project, as I recall.

Senator DWORSHAK. I share your apprehension on that score, because I appreciate fully that the fishing industry means a great deal to the Columbia River Basin.

Senator ROBERTSON. There is no doubt about that.

Senator DWORSHAK. And I think the Army engineers are fully aware of that problem. I do not think they would undertake the construction of Ice Harbor or any other dam without knowing full well that no damage would result to the industry.

M'NARY DAM, WASH.

Senator ROBERTSON. $36,000,000 for the McNary Dam is to move those salmon up that stream. That is in that McNary project. It makes me feel a little more kindly toward it.

Chairman MCKELLAR. Is that the report? How did you get that information?

Senator ROBERTSON. By reading the House report. I was a little disturbed about so large an item. I thought it was going to be navigation. I could not see where they were going to navigate above McNary Dam. I wanted to find out what it was all about. I sat down and read the whole testimony in the House. It is a logical presentation.

Chairman MCKELLAR. I am glad you have put that statement in the record.

LIBBY DAM, MONT.

Senator DWORSHAK. Mr. Chairman, one of the other important elements of the over-all development in the Columbia River Basin is Libby Dam in Montana. I mention that merely because the Bureau of the Budget had requested $200,000 with which to continue planning and that was deleted. I think that is a very small item. If the chairman will look at the map, and also the members of the committee, there is Libby Dam. This is an Army engineers project. Of course it is probably something that will not develop for a few years, but when you consider $200,000 required for doing the planning, that would seem to be a justifiable item.

Senator ROBERTSON. I do not like to keep interrupting but I can indicate what we from the East are up against. We have a little village of Quinby in Accomack County. It is a fishing village. All of their income comes from their sea-food resources. They are 200 yards from any available transportation. It is the only village I know of in the United States that does not have any transportation for 200 yards except at high tide. I think we learned in our Masonic work that the tide ebbs and flows twice in 24 hours. That means that most of the time they do not have any transportation at all. They cannot get to it with truck, railroad, or anything. They have to sit out there until the water is high enough to float the boats in to shore. Otherwise most of the day they have no transportation. I cannot even get a look at it. The cost of dredging an 8-foot channel is only $116,000 and the engineers said the ratio of benefit to cost was 9 to 1. That is the highest ratio of any project that has come before us.

Senator CORDON. Where is this located?

Senator ROBERTSON. It is on the eastern shore of Virginia in Accomack County, a wonderfully rich and old historic county. It is a fine community, but they are just simple fishermen and they have made their living out of the water all these years. These poor people have gone to work and raised their own money to try to get just 2 feet of water out there so they can float a little oyster boat up on it. I chipped in $25 to show my good will.

You would think that the Bureau of the Budget would say, "This thing is authorized, it has a wonderful ratio," but, "No, that is a new project, we cannot start it, let them sit out there."

Senator DWORSHAK. I have traveled throughout the Commonwealth of Virginia and have frequently stated I have been impressed with the maximum development I have observed in all areas. I think you would be sympathetic with these proposals in the Northwest because that is the so-called pioneer section in the United States and we are simply trying to back up the Old Dominion and other areas in the East in contributing something to the national preparedness.

Senator ROBERTSON. I am very sympathetic because it was a Virginian that explored that country and opened it up.

Senator DWORSHAK. Maybe there are a lot of Virginians out there now helping to develop it.

Mr. Chairman, I would like to make just one more point. We all are primarily concerned about the economic and military preparedness of our country in the face of chaotic world conditions. We know that we cannot undertake within the coming year all of the projects which are necessary to fortify our economy and our country from a military standpoint; but when we realize that the Bureau of the Budget and the President are requesting, I think it is, about $8½ billion for foreign military aid and foreign spending during the next year, we must pause and realize that as we spend these billions—and we do not know how much Congress will provide—to fortify and strengthen the free nations, must we not recognize that the expenditure of a few millions of dollars in the Columbia River Basin and elsewhere in making available electric power is just as vital as guns and tanks and ships and planes in building up the defenses of our country; and if that be true, certainly we can justify cutting down a few millions in the spending abroad and spend a little more of that money on the projects at home. If we do that, I think that we will accomplish much more from every standpoint and make America stronger than we could in any other way.

Thank you.

Chairman MCKELLAR. Thank you, Senator. We are very much obliged to the Senator from Idaho.

(Hon. Walt Horan of Washington submitted the following statement to be placed in the record at this point.)

STATEMENT OF HON. WALT HORAN

I appreciate the opportunity of being permitted to express my views with regard to the need of essential power projects in the Pacific Northwest. I fully appreciate that the aim of this committee and of the Congress is to effect the maximum economy possible in the national budgets but reductions that can only result in impairing regional economy, impairing national defense, promoting unemployment and general human misery, are not economy.

I should like to point out that during the coming winter in the Pacific Northwest 599,000 kilowatts of power load will be served on a so-called interruptible basis. In the winter of 1952–53 596,000 kilowatts and in 1953–54 447,000 kilowatts of power will likewise be served on an interruptible basis. In subsequent years through 1957–58 there will also be important amounts, although somewhat less, of power served on an interruptible basis. This means, gentlemen, that if minimum water year conditions prevail in any of these years, these amounts of power load cannot be served. Major amounts of aluminum, magnesium and phosphorous needed for national defense will not be produced and corollary to such curtailment unemployment will rise, general power curtailment will be necessary and complete disruption of the Northwest economy will result. For example, if minimum water conditions should prevail in 1954 and 1955 requiring the shutting off of this power served on an interruptible basis, one result would be 212,000 kilowatts of productive capacity lost which would produce 110,000 tons of aluminum. It is estimated that the drop in product value due to such curtailment in 1954 and 1955 would amount to 60 million dollars.

The House of Representatives saw fit to deny funds for Albeni Falls, Ice Harbor, The Dalles, and Dexter projects and to reduce funds requested for McNary Dam. Although funds were allowed for the Lookout Point project, it cannot produce power without the Dexter dam that is needed for regulation of the river below Lookout Point if power is to be produced. Power production from all of these projects will be absolutely essential to the Northwest region.

Last year the urgency of the need for Albeni Falls was so well recognized that supplemental appropriations were provided to initiate construction. The im-

portant feature of Albeni Falls is its water storage that will be worth its weight in gold in the event of a minimum water year. Water is power and power is the all-important tool without which the modern world literally cannot exist. Albeni Falls is a small project which can be completed rapidly. Its storage can be available for the winter period of 1952–53 if construction is permitted to proceed as now scheduled. The water storage behind Albeni Falls means 110,000 kilowatts of additional firm power at Grand Coulee and Bonneville. As other plants are completed, this amount of firm power will increase, as the water stored behind Albeni Falls can be used over and over at every one of the plants on the main stem of the Columbia River. As other plants come into operation, Albeni Falls water will produce nearly 250,000 kilowatts of firm power at downstream plants, which plants must eventually come into operation to meet the power requirements of the Pacific Northwest. Albeni Falls generation will provide an additional 23,000 kilowatts of firm power when its generators are installed, scheduled for installation in 1954. I earnestly urge that the requested appropriations for this project be allowed.

I also urge that the budget request for McNary dam be restored so that that project can stay on schedule. Power from Ice Harbor and The Dalles must also become available as scheduled to meet the needs of the Pacific Northwest.

The Federal Government operates in the Pacific Northwest on an integrated basis with all of the other utilities, private and public, in the area. This pooling has done much to improve area economy and to provide additional power resources. The Federal Government plays a major roll in this pooling of resources, so much so that the entire region has become dependent upon the Federal Government for its power requirements.

In order to provide these requirements the Federal agencies involved, i. e. the Bonneville Power Administration, the Corps of Engineers and the Bureau of Reclamation have jointly set up a schedule of power installations that will meet the power requirements of the area. This schedule must be followed if the Government is to fulfill the roll it has assumed in the economy of the Pacific Northwest. Fulfillment of this schedule will require complete restoration of the projects eliminated from the bill now pending before your committee.

Senator CAIN. Mr. Chairman, we have with us the junior Senator from Idaho, Senator Welker.

STATEMENT OF HON. HERMAN WELKER, A UNITED STATES SENATOR FROM THE STATE OF IDAHO

ALBENI FALLS PROJECT, WASHINGTON-IDAHO

Senator WELKER. Mr. Chairman, Senator Cain, and members of the committee, I am delighted you have asked me to make an observation. I join in the tremendous endorsement of this project by my senior Senator, Mr. Dworshak, my contemporary Senator, Mr. Magnuson, and Mr. Cain of Washington. I want to make this brief, because I know that these people here are in urgent need of their time, but those of us from the Northwest who have lived there and seen these billions of gallons of fine water that mean electric energy to our country flowing into the sea, of no benefit to anyone, naturally are insistent upon the development of this area.

Sometimes I think I am dreaming, Mr. Chairman, when I think I am a young Senator here and am called upon to vote on millions of dollars of appropriation for a project called the Voice of Freedom. As a young Senator from Idaho, I cannot see the benefit of it yet. When I see such urgent need for electrical energy, in developing energy of this Nation, literally thrown out of the door by men in the House of Representatives and in the Senate, and I appreciate their desire to save money, I think we are dreaming when we are not more sincere.

FULL STATE ENDORSEMENTS

I am glad indeed to notice that the Governor of Idaho has joined the senior Senator, my friend the Congressman from Washington, in endorsing these great projects. I just want to say in brief that I am for them 100 percent and if this situation is as serious as we are led to believe, and actually believe it, we should not cut away these appropriations on these projects which have already started and which mean so much to this Nation, not only to the Northwest.

I thank you very much, Mr. Chairman, for permitting me to make my observation.

Chairman McKellar. I judge that you endorse very strongly what has been said about these projects?

Senator Welker. I think I was one of the first to endorse this movement the first day I came to the United States Senate, Mr. Chairman.

Chairman McKellar. We are very much obliged to you, Senator.

Senator Cain. We have today Representative Hal Holmes in whose district are a considerable portion of the projects we are discussing today. I know Mr. Holmes has offered a statement, but I wonder if he would care to add a word to that.

STATEMENT OF HON. HAL HOLMES, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

RIVERS AND HARBORS, WASHINGTON PROJECTS

Representative Holmes. Nothing other than this, Mr. Senator. I have submitted my statement to you, Mr. Chairman, and you have very graciously acknowledged it and it has been placed in the record.

I do want to say that the members of the Northwest delegation presented strong testimony before the Civil Functions subcommittee on the House side concerning these projects.

Chairman McKellar. Did you have an "aye" and "no" vote in the House?

Representative Holmes. No, there was not an "aye" and "no" vote in the house in relation to this project.

Due to the fact that you are crowded for time and have innumerable expert witnesses here giving additional information, I shall only say that I appreciate your placing my statement in the record concerning these matters and your gracious reply to me stating that you had done so.

STATEMENTS OF UTILITIES GROUPS

Senator Cain. Mr. Chairman, we come now to those who produce, manage, and generate electric power throughout the Pacific Northwest. They will be represented by a spokesman, but with the indulgence of the committee I should like to read the names of those who are here to answer questions and to outline their titles in order that the committee and all of us will be very conscious of what they actually do represent. I think it was James Farley who referred to the Union consisting of 47 States and the Soviet of Washington. That characterization as a result of the names I now give you no longer is in force and effect.

The chairman of the Pacific Northwest Utilities Conference Committee is Mr. C. A. Erdahl of Tacoma, Wash., who will be the spokesman for the group.

He is accompanied from Tacoma by J. Frank Ward, president of the American Public Power Association.

I wonder if the gentlemen introduced would just rise as I introduce them, for the benefit of the committee. Mr. Erdahl, would you please rise, and Mr. J. Frank Ward.

Then from Eugene, Oreg., we have Mr. F. Ford Northrop, president of the Northwest Public Power Association.

From Seattle we have Mr. Kirby Billingsley, representing the Washington State Public Utility District Commissioners Association.

From Spokane, Mr. Marshall Blair, assistant to the president of the Washington Water Power Co.

From Portland, Oreg., Mr. Frank M. Warren, executive vice president of the Portland General Electric Co., and assisting him, Mr. Arthur J. Porter.

From Seattle, Mr. R. J. Plymire, assistant to the executive vice president of Puget Sound Power & Light Co.

From Seattle also, Mr. Robert Jones, utilities chairman of Seattle City Council.

Likewise, from Seattle, Mr. P. C. Spowart, assistant superintendent of Seattle City Light.

From Cathlamet, Wash., John S. Dixon, manager of Wahkiakum County Public Utilities District.

From Portland, Oreg., Allan A. Smith, counsel for Pacific Power & Light Co. and Mountain States Power Co.

From Portland, Oreg., Dr. Paul J. Raver, Administrator of the Bonneville Power Administration.

Mr. Herbert G. West comes to us today from Walla Walla, in the State of Washington, in his capacity as executive vice president of the Inland Empire Waterways Association, and he is associated with Mr. Charles Baker, president of that association.

Gentlemen, I know that the committee bids you all welcome.

Mr. Erdahl, will you be so kind as to come before us with the presentation you have in mind?

Mr. ERDAHL. yes, sir.

STATEMENT OF C. A. ERDAHL, CHAIRMAN, PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

RIVERS AND HARBORS, WASHINGTON PROJECTS

Mr. ERDAHL. Mr. Chairman and gentlemen, we appreciate the opportunity of coming before you and stating our case. We in the Northwest, public agencies, private agencies, and Federal Government, have a joint public utility responsibility to our people out there.

As I listened to the discussion among you gentlemen and the problems that come before you from the House, I am wondering if possibly we have not been a little bit derelict in our duty in bringing the proper story to the group back here so they could have a better understanding of what our problem is. If that be the case, we hope we will have a full opportunity to do that, and we assure you that will not happen again.

Senator MAGNUSON. If I may interrupt, the record also ought to show that the Defense Electric Power Administration is represented here, the Army engineers, and the Government agencies involved in this matter.

Senator CAIN. Indeed, sir.

POWER DISTRIBUTION ARRANGEMENTS

Chairman MCKELLAR. Now let me ask one general question before you start. Are these projects similar to those on the Tennessee where the engineers have built the dams and there are arrangements by which the power companies distribute the power?

Mr. ERDAHL. With respect to these dams about which we are speaking this morning, Senator McKellar, the Army is building the projects. The Bureau builds some of the projects in the Northwest and the Bonneville Power Administration distributes that power as the Federal agency in charge of that particular phase of it. However, jointly with the public agencies, the private agencies, and the Federal Government we have the great Northwest power pool, and if I might be just a little bit on the chamber of commerce side, yes, the Pacific Northwest or the Columbia Basin is like the Tennessee except on a much bigger scale, Senator.

Senator CAIN. Mr. Chairman, I want to point out that during the course of Mr. Erdahl's testimony and answers provided by other witnesses there will be some important things said about non-Federal projects to which I wish to draw the attention of the committee.

QUESTION OF PROCEDURE

Mr. ERDAHL. We have discussed, Mr. Chairman, the best way to place this before the committee and as rapidly as possible so that questions that you might have might be answered.

Chairman MCKELLAR. Why not put your prepared statement in the record and talk about the high points?

Mr. ERDAHL. I thought possibly reading the statement was the best way, however, I am inclined to believe that the chairman perhaps is right. I think maybe to conserve time I should go through and see if I cannot brief it as much as possible.

Senator CAIN. May I raise a question, please? Mr. Chairman, their statement, while conclusive, covers only 13 double-spaced pages. I think because each member of the committee has a copy of this statement that the witness would help us by reading his statement against which we might interrupt and ask questions from time to time, which would give a continuity to this whole problem that the record lacks thus far.

Mr. ERDAHL. With the understanding, if I may, Mr. Chairman and gentlemen, that some of these gentlemen that are here representing the public agencies, the private agencies, and the Federal Government are obviously much better prepared, and if we could handle it on that basis that we present our story and I may ask other people in our group to answer these questions that might be raised by you Senators, I think we would get a better statement of facts before you, if we could do it that way.

COOPERATION IN POWER DISTRIBUTION

Senator CORDON. Mr. Chairman, you asked a question which I think was not completely answered. That was as to how the Government administration and the other agencies cooperated in the distribution of this power.

Chairman MCKELLAR. I would like to know that.

Senator CORDON. I might make this short statement, Mr. Chairman, that the Federal Government at its generating facilities generates the power. There is a vast network of backbone transmission lines over the area. Over that transmission system is integrated all of the heavy transmission lines of all the private utilities and local public utilities, including municipalities, so that there is a complete integration or power pool in the area. Then the Government sells its power to the distribution system. The Government does not distribute the power on a retail basis but only on a wholesale basis, giving the preference that the law requires in connection with those sales. That is substantially as it is in the Tennessee Valley Authority where you have the municipalities, and so forth, locally handling it on a retail level. That is true all over the Pacific Northwest.

METHOD OF ESTABLISHING RATES

Chairman MCKELLAR. May I ask this question? How are the rates fixed?

Senator CORDON. The rates for the retail distribution are fixed by the State. The basic rates for the Federal Government are fixed under the direction of the Federal Power Commission. Those are wholesale rates, I want you to understand.

The municipalities, of course, operate wholly under State law. They are creatures of the State and likewise the retail rates of the retail distributing agencies are fixed by the States.

There is a coordination, however, even in that area having the result of not permitting a profit to a distribution agency based on power that it does not generate.

Chairman MCKELLAR. Proceed, Mr. Erdahl.

HOUSE CUTS WOULD WASTE MONEY

Mr. ERDAHL. I would like to say at the beginning that 10 days ago I visited all these dams and dam sites that have been talked about this morning. I would say that we hope to be able to prove to you gentlemen that it would be a waste of Government money if these cuts made by the House were not reinstated, because the contractors are on the job, they are doing the work.

CHIEF JOSEPH DAM, WASH.

At Chief Joseph there is just one figure that might impress you. It cost the contractor $4,000,000 in equipment to get started on the Chief Joseph project. If the Corps of Engineers had to cancel out and take that contractor out of there because of lack of funds, it would be very costly. It is the same way at Albeni Falls and down to McNary Dam. The men are there, the crews are there. Once you lose those crews and you have to move your equipment out, and you

have delaying action on contracts that are as far along as these are it would be not only sad from the power standpoint but very costly to the Federal Government.

This committee which has come before you today is, I am sure, fully representative of all of the electric-power utilities, publicly and privately owned, participating in and served by the western group of the Northwest power pool. These are the utilities, including the Federal Columbia River system, which share the responsibility of providing electric power for the industries, farms, and homes of that vast Pacific Northwest corner of the Nation.

NORTHWEST POWER POOL

The Northwest power pool, as you may know, is an interconnected network of more than 4,000 miles of high-tension power lines normally maintained in integrated operation to provide, through various diversities, a total power capability far in excess of the individual capabilities of its individual members. Our Federal system, here represented by the Bonneville Power Administration as the marketing agency for all federally generated power in the region, supplies something more than 50 percent of the power supply of the pool at this time.

In speaking for this group, I appear as I have on numerous occasions before congressional committees over the last 4½ years, as chairman of the Pacific Northwest UtilitiesConference Committee.

TYPES OF SERVICE

Senator CORDON. Would you mind if I suggest that you identify the class of electric service that is included in that committee of which you are chairman?

Mr. ERDAHL. The types of utilities?

Senator CORDON. Yes.

Mr. ERDAHL. I think perhaps I can best name them as Senator Cain has introduced the representative group here. We have the private companies down in your State, Senator, Pacific Power & Light in Portland——

Senator CORDON. I do not care about identifying them by name, just the class. You have the private distribution companies?

Mr. ERDAHL. That is right.

Senator CORDON. You have the municipalities?

Mr. ERDAHL. That is right.

Senator CORDON. You have the public-utility districts and rural electric cooperatives?

Mr. ERDAHL. That is right.

Senator CORDON. And then you have the Federal Government which produces over half the power?

Mr. ERDAHL. That is right.

Senator CORDON. They are all members of the committee, sit on the committee, and you are speaking for the whole group now?

THEORY OF JOINT RESPONSIBILITY

Mr. ERDAHL. That is right. This is a voluntary organization where we are trying to do the best possible job for the people in our

area. As I said before, we have always worked on the premise that here we have the Federal Government, public agencies, and private companies who have a joint public-utility responsibility to the people in the area and a very important responsibility to not only new defense industries which we would like to have come to our area but more so the protection of these defense industries that are there, as we hope to bring out. Gentlemen, this is more serious than possibly inviting new defense industries. We will show you by our operating report that this coming winter it is going to be impossible for us to carry the defense industries that we have, because if we have less than median water it will be impossible to carry all the industries that we have, and some of them are very, very important.

We want to ask you gentlemen if it would be in the interest of national defense that possibly somebody order the city of Tacoma, for instance, to cut out Fort Lewis, which is a large Army base, or McCord Field, which is the main airport or airfield for the Korean take-off.

APPROPRIATIONS, 1951

Chairman McKellar. What did the Congress allow you last year? What was your appropriation for the year just closed?

Mr. Erdahl. For the Corps of Engineers or for the total?

Chairman McKellar. The total amount.

Senator Magnuson. The budget estimate?

Chairman McKellar. I would like to know what you actually got.

Mr. Erdahl. Could you help us with that, Dr. Raver?

Chairman McKellar. The Corps of Engineers should know. What was the total amount of the actual money appropriated last year?

Colonel Potter. For Albeni Falls, $2,900,000; for McNary, $39,610,000; for Chief Joseph, $18,529,000.

Chairman McKellar. What did the House cut those amounts this year?

Colonel Potter. This year, we asked for $10,000,000 to carry on Albeni Falls; the House eliminated all funds for this project. For McNary, where we had asked for $42,900,000, the House allowed only $36,000,000. For Chief Joseph, we had asked for $17,392,000, and the House allowed the full amount.

Chairman McKellar. For Chief Joseph the House gave you approximately what you requested?

Colonel Potter. Yes, sir; they allowed the entire amount.

Now on The Dalles we asked for $18,000,000 and nothing was allowed. For Ice Harbor we asked for $4,000,000 and nothing was allowed.

Senator Robertson. Those last two would be new starts; would they not?

Colonel Potter. Yes, sir.

Chairman McKellar. All right. Proceed.

CONTINUED REQUEST

Mr. ERDAHL. In 4½ years our basic mission to the Congress has not materially changed. Permit me to quote an excerpt from our original statement of policy adopted in conference January 22, 1947:

> It is recognized that provision for future supplies of electric power adequate to maintain continued industrial, agricultural, and utility development in the Pacific Northwest depends upon the construction of multiple-purpose projects on the Columbia River and its tributaries. The Federal Government, by numerous acts of Congress, has assumed responsibility for the construction of these multiple-purpose projects. The assumption of this utility responsibility by the Federal Government has caused investors and management of both publicly and privately owned industrial and power-distribution enterprise in the States of Oregon and Washington to plan their investments and developmental programs in the belief that this Federal policy will continue.

The statement of January 1947 pointed out that existing generating capacity of the region was then fully utilized; that maintenance of an adequate power supply was of extreme importance, and that for the Federal Government to fulfill its utility responsibility it would be necessary to make provision for large additional supplies of power beyond those projects for which authorization and appropriations had already been made. In conjunction with that statement we submitted carefully prepared and conservative statements of our regional power needs year by year through to November 1, 1953. Since we projected need upon the basis of a peacetime economy, we were at that time far too conservative in our estimates. We could not then foresee the Communist influence upon our national affairs. We could not foresee Korea and Iran and Indochina.

IMPACT OF KOREAN WAR

Senator CAIN. What changes have been brought about by the conflict in Korea?

Mr. ERDAHL. We have had the impact that the whole country has had by the Korean situation—more demands upon our area, particularly on the defense angle that Senator Magnuson spoke on and because of the urgent need for keeping those defense plants going at full capacity, plus the demand of those plants for an expansion program.

I would like to have Mr. Ward bring out a little later some of the inquiries we have had from important industrial customers for expansion after they have had their certificates of necessity.

Senator CAIN. In other words, your plans have turned out to be entirely too conservative to fulfill your obligations?

Mr. ERDAHL. That is right.

Senator MAGNUSON. Mainly aluminum, for which they are putting more plants in, and mainly the expansion of the Atomic Energy plant, which is taking a great block of this power.

Mr. ERDAHL. Aluminum is one; Atomic Energy we know about—we do not speak of it, of course—and one that the Army has been talking to Mr. Ward about, of the city of Tacoma. They are going to make more demand on us for Fort Lewis. We do not use those figures, but they are important to national defense. We have to be prepared as a joint group out there to meet that responsibility to do our part in national defense.

Senator YOUNG. South Dakota tried to get that aluminum plant you are speaking of. We have an estimated 600,000,000,000 tons of lignite coal lying underneath our area. We tried our best to get that plant because you have a vast amount of power in the Pacific Northwest generated by Government dams, but we lost out. We could generate electricity about as cheaply as you if we had the Government funds that have been made available to your area.

Mr. ERDAHL. Senator, I might say I appreciate that. However, we are trying to prove our case perhaps on a little different basis. We are not going to have enough power to take care of the people we have there unless you gentlemen find some way to provide for reinstatement of those cuts that have been made and also to see to it that we do get some early starts on some of the short-term projects about which we are talking. I see your point.

Chairman MCKELLAR. Can I interrupt just a moment to say to my friend over here, Senator Young, that after some experience I have had many of the disappointments to which he has referred?

Senator WELKER. Would the witness yield to me for a very short statement to emphasize what he is stating to the committee at this time?

Mr. ERDAHL. Yes.

POWER SHORTAGES DISCOURAGE PLANT LOCATION

Senator WELKER. The State of Idaho has few industries, as you know, outside of our mining, timber, and so forth. Just a few weeks ago, Mr. Chairman, one of the giant chemical corporations of the United States and the world, Monsanto, attempted to develop highly technical and strategic chemical processes within the State of Idaho. It meant a lot to the industry and to the economy of Idaho. With all the vast waterways we have, do you realize, Mr. Chairman, that we had to negotiate a contract with the Utah Power Co. on our south to be able to get enough firm power for this corporation to come within the State of Idaho? That emphasizes what the witness is bringing out, from my own State alone.

I am sorry for the interruption.

Chairman MCKELLAR. Go ahead.

Mr. ERDAHL. We asked at that time for 1½ million kilowatts of additional generating capacity and related transmission facilities by November 1, 1953. Today the non-Federal utilities of our group are embarked upon projects—authorized, under construction, or pending Federal Power Commission approval—which would provide in excess of 1,000,000 kilowatts of new generation possible of activation before the end of 1954—that in addition to all Federal authorizations—and still we do not see enough power ahead, soon enough, to relieve us of critical pressure year after year.

I think it would be most pertinent at this point, if the committee will permit, to quote a letter which was written only 3 weeks ago by Mr. C. B. McManus, then the Defense Electric Power Administrator, to Senator Carl Hayden, chairman of the Department of the Interior Subcommittee. I refer to this letter to show my point that our basic problem of power supply persists in spite of all expenditures made by the Federal Government and by the utilities themselves over the intervening years since 1947.

POPULATION INCREASE

Chairman McKellar. May I ask this question, I ought to know it, but I do not: What has been the increase in the population in the last 10 years out there and to what is it attributable?

Mr. Erdahl. On the average, it is about 40 percent, taking the whole area.

Chairman McKellar. I knew it was large.

Senator Cain. On the average, the States of Washington, Oregon, and California have benefited from a total population increase of more than 30 percent.

Senator Cordon. We have to have in mind, Mr. Chairman, that the population of this country is now increasing at a net rate of 6,000 persons per day.

NONFEDERAL UTILITIES PROJECTS

Senator Cain. Mr. Erdahl, you have just said that the non-Federal utilities in the Pacific Northwest have plans which will result in the development of an additional 1,000,000 kilowatts of power. The inference there is that that will not be a cost imposed on the Federal Government, and I am certain that the committee would like to know precisely to what you refer. What are these projects which are being planned for by the non-Federal utilities?

Mr. Erdahl. I might say, Senator, that I think I can call, if you like, on the various individuals here representing those utilities, public and private, who have plans, some of them in the making and some of them under construction, and possibly they could give the committee a very brief and quick report on the status of those individual items.

Senator Cain. If the chairman would permit, I think it would be of considerable benefit to the committee to identify each of these intended projects with a brief statement concerning their present status, so that we know more about the possible relationship between Federal and private development.

Mr. Erdahl. I think we could do that very rapidly.

Chairman McKellar. Go ahead.

Mr. Erdahl. First, I would say that one of the new projects that is under construction is the Cabinet Gorge project on the border of Idaho and Montana on the Clark Fork. We have Mr. Marshall Blair from the Washington Power Co. Mr. Marshall Blair will give the committee a brief statement on the status of the Cabinet Gorge project—also the completion date.

STATEMENT OF MARSHALL BLAIR, ASSISTANT TO THE PRESIDENT OF THE WASHINGTON WATER POWER CO.

PRIVATE POWER PROJECTS UNDER CONSTRUCTION

Mr. Blair. Mr. Chairman, our objective is September 1, 1952, slightly over a year from now. We are under full construction and we are right on schedule.

We, of course, have our troubles with materials, but, so far to date they have not held us up. The diversion tunnel is driven and we are about ready to divert the water as the floods this spring drop down.

We have all the construction crews in there, all equipment, all materials were ordered over a year ago. At the moment we think we will be right on schedule. Our plant is 230,000 kilowatt capacity and will cost $35,000,000.

Senator CAIN. Thank you, sir.

Mr. ERDAHL. The next one we have is the Yale project on the Lewis River, which is being constructed by the Pacific Power & Light Co.

I will ask Mr. Allan A. Smith, counsel for the Pacific Power & Light Co., to give us a brief report on Yale.

STATEMENT OF ALLAN A. SMITH, COUNSEL FOR PACIFIC POWER & LIGHT CO., AND MOUNTAIN STATES POWER COMPANIES

YALE PROJECT, WASHINGTON, UNDER PRIVATE CONSTRUCTION

Mr. SMITH. Mr. Chairman, the Yale project is under construction and scheduled for completion by November 1, 1952.

Chairman MCKELLAR. Will you point out where that is?

Mr. SMITH. That is on the Lewis River.

The project will cost approximately $26,500,000 and will furnish 100,000 kilowatts of peaking capacity, and about 5½ million kilowatt-years of energy.

Senator CAIN. I thank you.

Mr. Chairman, I think many a Member of the Congress has the impression that the Pacific Northwest is being developed entirely through Federal assistance. We only want to establish as being so that it is a tight relationship between the Federal and non-Federal agencies, that are actually carrying on paying for this work.

Mr. ERDAHL. I think that is a good point.

Chairman. MCKELLAR. They seem to be cooperating here.

Mr. ERDAHL. It is a partnership arrangement, and actually because of our power-pool integrating system we are going to rise or fall together. We have our own points of view from the standpoint of ideologies, and so forth, but on this point we are before you gentlemen today just as solid as the Rock of Gibraltar, and we have to do a better job of convincing these committees in the Congress of their responsibility, along with our responsibility, in order to make this a complete picture.

Senator MAGNUSON. We ought to add the municipalities, too.

Senator CAIN. I think he will make reference to those, Senator Magnuson.

Mr. ERDAHL. The next project under construction is the Seattle city light project on Skagit River. They have been having a problem with critical materials and so forth. It is well under way. We hope it will come along rapidly. For a report, let me call on Bob Jones, the chairman of the city utilities committee of the city of Seattle.

STATEMENT OF BOB JONES, CHAIRMAN, CITY UTILITIES COMMITTEE OF THE CITY OF SEATTLE, WASH.

PRIVATE POWER'S SEATTLE PROJECT

Mr. JONES. Mr. Chairman, just this week we were able to put 40,000 more kilowatts on the line. We just completed at the Gorge, putting a machine in there that brings in 40,000 kilowatts at a cost of around $12,000,000.

Our total plant equipment now is $185,000,000 and at the present time we are starting to build below Ross Dam a powerhouse that will have 270,000 kilowatts of power at a cost of $40,000,000.

If we can get the necessary materials, we will bring in the first generator of 90,000 kilowatts on December of 1952, or next year. The next two will come in in the first 6 months of 1953, which will bring that up to 270,000 kilowatts, plus the 40,000 from the Gorge, that I have told you about.

Chairman MCKELLAR. I am interested in what you say about materials "if you can get the necessary materials"—do you have trouble getting the necessary materials?

STEEL SHORTAGES

Mr. JONES. At the present time, yes, sir. We cannot get any bids on two gates for our tunnels because we cannot get anybody to bid on them because of the steel shortage, they tell us.

Senator YOUNG. If they are building more dams, it will not help that situation any, will it?

Mr. JONES. That is right.

Senator CAIN. It will call for a different allocation of available steel.

ADDITIONAL KILOWATTS FOR NORTHWEST POWER POOL

Mr. JONES. The Bonneville Power Administration is very desirous of our bringing into the area this 270,000 kilowatts, because we are in the power pool.

Senator YOUNG. Do you think the Pacific Northwest is the only place where we should build dams now?

Mr. JONES. No, sir; I do not. I imagine there are a number of places, but the idea is that I am simply trying to show here what we of the city of Seattle have spent, and are going to spend in the next 5 years, another $60,000,000. Having already spent $185,000,000 in our own plant.

Senator YOUNG. Do you think worthy projects in other areas of the United States should have support, too?

Mr. JONES. I certainly do, yes, sir.

Senator CAIN. I would like to say, Senator Young, with reference to this group, that they, on many occasions, have sent wires and letters to me and my colleagues, urging us to support comparable situations in other parts of the country; for one sole reason—that the generation of power means a greater economy for all of the 48 States in the Union.

Mr. JONES. Mr. Chairman, I have a statement which I should like to have placed in the record.

Chairman MCKELLAR. Without objection, your statement may be placed in the record.

(The statement referred to is as follows:)

STATEMENT OF BOB JONES, CHAIRMAN OF CITY UTILITIES COMMITTEE OF THE CITY OF SEATTLE

Statement relative to appropriations for multiple-purpose projects on the Columbia River and tributaries to the subcommittee of the Committee on Appropriations of the Senate of the Eighty-second Congress. Civil functions—Corps of Engineers' appropriations bill for the fiscal year 1952.

The city of Seattle has been in the electric utility business for 46 years and a the present time serves over 203,000 customers using over 2 billion kilowatt-hours of electric energy per year. This municipal utility is the second largest in the United States. The policy of the city in the operation of its electric business is to provide the best electric service possible at the lowest rates consistent with a sound financial condition.

This policy is reflected in the fact that the city of Seattle's rates for electric service are among the lowest in the Nation and its average revenue rate for kilowatt-hours sold to the ultimate consumer is the second lowest in the Nation in cities with a jpopulation greater than 50,000. In Seattle during 1950 over 50 percent of the city's electric business consisted of sales to the domestic class of consumer. The energy sold in this class of service represents an average use of 5,628 kilowatt-hours for each individual home unit. During the year 1950 the electric operations of the city of Seattle paid out $1,835,000 in the form of taxes in contributions to government which amounts to 13 percent of its gross revenue from electric sales. The city owns three hydroelectric generating plants, two steam plants, and the transmission and distribution facilities necessary to deliver the power to the consumer. In its effort to meet the growing demands of electricity in the area, the city of Seattle has recently completed Ross Dam on the Skagit River at the cost of approximately $28 million. The construction of a power plant at Ross Dam is now under way and will be completed in the early part of 1953. This plant will contain four generators of 90,000 kilowatts each.

The first of these generators will be available for service in December 1952, with two more generators following in the early part of 1953. The fourth unit will be installed at a later date. This plant, along with transmission and additional facilities, will require an expenditure of approximately $50 million over the next 5 years. An additional generating unit of 40,000 kilowatt firm capacity has just been brought into service at the city's Gorge plant on the Skagit River at a cost of approximately $12 million. At the present time the city is depending on the Bonneville Power Administration for the supply of approximately 90,000 kilowatts of firm power. This requirement will increase each year until the city brings in new generating facilities.

Our interest here is in the appropriation of funds requested by the Corps of Engineers for the continued construction on schedule of the Albeni Falls, Chief Joseph, and McNary Dams. Also we urge that appropriations for the two new projects, namely Ice Harbor and The Dales, be restored so that these projects can be kept on schedule. All of the foregoing projects mentioned are a part of the program of generators installed by the Federal Government as outlined under schedule T of the current advanced program report published by the Bonneville Power Administration. This report indicates that even with the new capacity outlined under schedule T there will be energy deficits continuously from now until the winter of 1958–59.

In connection with the appropriations requested it is desired to point out that the funds for such appropriations are in a class entirely different from most other public-works functions. All of these projects are set up on an economic basis that will allow the return to the Government of every dollar appropriated for the construction over a reasonable period of time. Funds for these projects represent capital investment rather than a tax expenditure.

The growth of power demands in the Northwest area is higher than in other sections of the country and the Federal Government has in its development of Columbia River power incurred a public-utility responsibility to build generation facilities required by power demands. The utilities in the area are faced with a constant threat of inadequate power supply and hence are unable to adequately guarantee vital defense installations a supply of firm power.

It is for these reasons alone that we are respectfully requesting that your committee include in the appropriations the amount requested by the Corps of Engineers relative to the projects mentioned located in the Columbia Basin.

Senator MAGNUSON. I think my friend from North Dakota will find, if he looks at the record, that the Pacific Northwest delegation for many, many years in the sessions of Congress have supported every worth-while power-development project in the whole United States.

Senator YOUNG. I think that is right. I was thinking about a No. 1 project in North Dakota, just a little one that we lost the other day.

Senator MAGNUSON. I know about that one personally.

Chairman MCKELLAR. I believe I introduced the first power bill for building that Muscle Shoals Dam on the Tennessee River. I went to the House, I think, in 1911, and about 4 days after I got there I introduced a bill to build a dam at Muscle Shoals. I was hooted at, but, before it was over, with the splendid help of the western Congressmen and western Senators, we got that proposal started. It was passed in Mr. Wilson's administration, but it was started in Mr. Coolidge's administration. For that reason I have felt so grateful to the people of the West that I do not think I have ever voted anything but "Yes" on any power plant in the West.

I feel that the Government ought to continue what it is doing, in building up these plants in America. That is the way I feel about it.

Mr. ERDAHL. Thank you, Mr. Chairman.

COOPERATIVE INVESTMENT IN POWER

I think possibly, in answer to the Senator's comment there, the best way that we have of explaining to you our position is having these gentlemen explain what we as municipalities, public agencies, and private companies are willing to do with our money. We think it is a good investment, as Senator Magnuson has said. It is a loan to the Federal Government. It is reimbursable money, and I think if the Federal Government could make that kind of investment any place else or every place in the United States, it would be to our advantage as citizens, as well as the responsibility we have from the standpoint of supply of power to our people, wherever they may be.

Senator YOUNG. You realize that when a Member of Congress votes for that appropriation, he is at once labeled as having voted for pork-barrel legislation.

Mr. ERDAHL. I appreciate that, Senator. I am in complete sympathy.

Chairman MCKELLAR. That is a completely wrong statement. That pork-barrel statement about power is absolutely wrong. Power does, and will continue, to pay for itself. One of the great advantages that this Government has is the Corps of Engineers, which have done such a wonderful job in developing the power facilities of our country.

UTILITY RESPONSIBILITY A CONTINUING ONE

Mr. ERDAHL. I agree with you, Senator, the Corps of Engineers has done a wonderful job for the people in the Northwest, and we are glad for the opportunity to help them do that job so that we can meet our responsibilities.

You know, Senator, there is a difference, if I may bring it out at this point, actually, of a utility responsibility as compared to possibly a public works project.

When you have a public utility responsibility, it is a continuing responsibility that either the Federal Government must meet, or we in the public agencies or the private agencies must find a way to meet because the demands of the public go on. In other words, we have been trying to discourage consumption because we do not have enough to go around. In spite of that, in the city of Tacoma, Mr. Ward informed me yesterday, our load growth this year as compared to last year runs between 16 and 17 percent greater.

Now, if you take and plot that out, you will see that in 6 or 7 years we have to double our capacity, or somebody else must double their capacity, in order to meet the needs of the people we serve, and that same experience is being realized by all utilities, the public agencies, the private agencies, and the Federal Government.

So, it is a rough deal.

Chairman McKellar. My friend here, Senator Young, wants to ask you a question.

Senator Young. I just wanted to make the statement, that to date, I think I have supported all the worthy water project programs before the Congress. I only mentioned the fact that while I was voting for them I was fully aware of the fact that I was being labeled as one who had supported "pork barrel" legislation. I do not believe in that term, but, nevertheless, that is the one that is always applied to this type of appropriation.

Mr. Erdahl. We thank you for your support in the past and anticipated support in the future, Senator.

Senator Cain. Out of that "pork barrel" there comes more aluminum, more industries, and a more healthy economy and more aircraft. We want more "pork barrels" of that type.

RETURNS TO TREASURY

Senator Magnuson. And returns quite a large amount to the United States Treasury.

Senator Cain. Which is not totally unimportant.

Mr. Erdahl. You know, the money does not come back to you, Senator, to your credit. In other words, they charge you with the responsibility for appropriating all the money, but when the returns come back to the Federal Treasury in the way of interest in your investment, and surplus that the Bonneville Power Administration has been able to accumulate from the sale of power from these projects, that the Corps and the Bureau build there, it is too bad they cannot send that back to the Congress where you say "Now, here, we are in business, we are making a profit on that business."

Senator Cain. That observation could not distress you nearly as much as those to whom it is addressed.

CONSTRUCTION PROJECTS IN 1952 BUDGET

Senator Young. Just a few days ago some new starts in reclamation were defeated in the Senate Appropriations Committee. They were small sums, new starts being asked for under the River and Harbors

program, a total of $622,722,600. I would like to insert in the record the cost of each one of these new projects that is being requested.

Chairman McKellar. Without objection, that will be done.

(The information referred to is as follows:)

Rivers and harbors

	Total estimated Federal cost	Appropriated to date	Balance to complete
1. New construction projects in approved budget for fiscal year 1952:			
Oregon: The Dalles lock and dam, Oregon and Washington	$326,366,000	$800,000	$325,566,000
Tennessee: Old Hickory lock and dam	49,120,000	450,000	48,670,000
Washington: Ice Harbor lock and dam	95,899,000	1,132,600	94,766,400
Total	471,385,000	2,382,600	469,002,400
2. New projects for which the Corps of Engineers requested construction funds for fiscal year 1952, but which were not allowed by the Bureau of Budget:			
Alabama: Howell Mill Shoals Dam	91,600,000	795,600	90,804,400
Alaska: Skagway Harbor	36,500		36,500
Connecticut: Housatonic River (18-foot channel)	904,000		904,000
Florida: Lake Worth inlet (enlarge turning basin)	238,843		238,843
Iowa: Lock 19 at Keokuk	16,164,000	377,500	15,786,500
Michigan: Detroit River, channel north of Belle Isle	213,500	1,000	212,500
New Jersey: New York and New Jersey channels (35-foot channel in middle section)	11,561,000		11,561,000
Oregon: Charleston Harbor (Coos Bay)	349,000		349,000
Pennsylvania: Raise crest of dam 8, Monongahela River	1,820,000	46,000	1,774,000
Texas:			
Brazos Island Harbor (38-foot and lesser depth channels)	3,050,000		3,050,000
Guadalupe River, channel to Victoria	13,137,000	180,000	12,957,000
Total	139,073,843	1,400,100	137,673,743

Flood control, general

	Total estimated Federal cost	Appropriated to date	Balance to complete
1. New construction projects in approved budget for fiscal year 1952: Gavins Point Reservoir, S. Dak. and Nebr.	$44,900,000	$668,800	$44,231,200
2. New projects for which the Corps of Engineers requested construction funds for fiscal year 1952, but which were not allowed by the Bureau of Budget:			
Alaska: Skagway River and Harbor	696,400	45,000	651,400
Arkansas: Ozan Creek	78,000	4,300	73,700
Illinois: New Harmony Bridge, Illinois and Indiana	525,000		525,000
Indiana: Vincennes	3,370,000	90,000	3,280,000
Kansas: Toronto Reservoir	15,000,000	260,000	14,740,000
Kentucky: Pineville	1,292,000		1,292,000
Missouri: Table Rock Reservoir, Ark. and Mo.	76,340,000	1,016,000	75,324,000
Montana: Libby Reservoir	239,077,000		239,077,000
New Mexico:			
Chamita Reservoir	32,374,000	202,000	32,172,000
Rio Grande floodway	3,150,000	60,000	3,090,000
Oklahoma:			
Keystone Reservoir	89,650,000	504,000	89,146,000
Markham Ferry Reservoir	33,715,500	545,500	33,170,000
South Carolina: Hartwell Reservoir, Ga. and S. C.	75,953,000	170,000	75,783,000
Tennessee: Stewarts Ferry Reservoir	19,000,000	592,600	18,407,400
Texas: Dallas floodway	7,500,000	192,000	7,308,000
Vermont: Ball Mountain Reservoir	11,500,000	520,200	10,979,800
West Virginia: Wheeling-Benwood	13,501,700	234,000	13,267,700
Total	622,722,600	4,435,600	618,287,000

Senator CAIN. Mr. Erdahl, you have other projects?

Mr. ERDAHL. We have two gentlemen. We have Mr. Richardson, president of the Chelan Public Utility District. Stand up, Mr. Richardson.

We have Mr. Billingsley, Commissioner of the Washington State Public Utility District Commissioners' Association.

Also Mr. McKenzie, a Chelan commissioner.

I think I might call on Kirby Billingsley, to bring the committee up to date on the Rock Island project that they have worked out just recently, and worked out in a combination deal with the Puget Sound Power & Light Co.

Senator MAGNUSON. I might point out, Mr. Chairman, that a public utility district in our State is a public body acting independently of Federal projects and spending money by private financing.

It is a local district, like a port or school district.

Chairman MCKELLAR. Will you come forward, please, sir? And have a seat?

STATEMENT OF KIRBY BILLINGSLEY, REPRESENTING THE WASHINGTON STATE PUBLIC UTILITY DISTRICT COMMISSIONERS ASSOCIATION

PRIVATE PROJECT EXPANSION

Mr. BILLINGSLEY. Out on the Columbia River, about 100 miles downriver, 140 miles downriver from Grand Coulee, is Rocky Island Dam, built by a private company at a cost of $33,000,000. The public utility district there is completing the project, expanding it by 200 percent, from 80,000 kilowatts we are increasing the capacity to 165,000 kilowatts.

Chairman MCKELLAR. That is privately owned?

Mr. BILLINGSLEY. The 80,000 kilowatts that has been installed is privately owned. The added installation will be by a public body. the municipal group.

Senator CAIN. How much money are you expending to accomplish that end?

Mr. BILLINGSLEY. A little over $33,000,000.

The first power will be in by November of next year. It will be completed within a year, by 1953, probably November 1953, the entire 165,000 should be on the line. That is using borrowed funds.

With your permission, I would like insert a statement in the record in connection with the other projects.

Chairman MCKELLAR. Without objection, that may be done.

(The statement referred to is as follows:)

STATEMENT OF KIRBY BILLINGSLEY FOR THE WASHINGTON ASSOCIATION OF PUBLIC UTILITY COMMISSIONERS

POWER VITAL TO NORTHWEST

The State Association of Power Commissioners of Washington, composed of the elected commissioners of 25 counties, by resolution has asked for the restoration of capital loan funds for Chief Joseph, Albeni Falls, McNary, Ice Harbor, and The Dalles, plus other smaller constructions at Lookout Point and Detroit.

Reasoning was based on the present power shortage, the indicated continuing shortage, the lack of local sources of natural gas, oil, or coal, and the need for

stockpiling electric energy for national defense. It was the farsightedness in building Bonneville and Grand Coulee Dams, while certain elements were talking "power for jackrabbits" that made possible the atomic bomb and the production of planes, ships, and other necessities during the last war.

From 1918, when our people first sponsored the idea of a dam in the Columbia at Grand Coulee, there were those who said there would be no market for power.

It was the same during construction of Bonneville Dam.

And in 1942 when we were here in Washington on behalf of Chief Joseph Dam they said, "no market for power."

In 1946 and 1947 when Chief Joseph authorization and appropriation were asked there was the same talk.

I wish to emphasize that the Northwest cannot progress without hydropower; it's our only energy base. There will be a market for every kilowatt of power from these five dams, and at rates which will repay every dollar invested, with interest.

The development of this natural resource—these multiple-purpose projects located on interstate and international streams—falls within the province of the Federal Government.

Action by Congress to stop this development is cause for consternation.

Since no one else, private or public, can carry forward these projects, and since these appropriations are recognized as capital loan funds which are repaid with interest, we urge that this committee give this request your favorable consideration.

HYDROPOWER ONLY HOPE FOR EXPANSION

Mr. BILLINGSLEY. The only other thing I would add to what has already been said is that out there we have no oil wells, no natural gas, and no large industrial deposits of coal. Our only hope of expanded industrial production is this hydropower.

We must look to you for these big projects. Neither the small municipals like ourselves, or large municipals like the cities of Tacoma and Seattle can finance a project which requires 10 or 15 years to get it into production. Grand Coulee Dam was started in 1933. The power was on the line in 1943. You just cannot borrow that kind of money. It is up to the Federal Government to do it, and we hope that you will continue with the program that is already under way.

Thank you.

Mr. ERDAHL. Thank you, Mr. Billingsley.

Next we have two projects for which we do not have any particular individual representatives. I think I can briefly bring the committee up to date.

It is the Box Canyon project on the Pend Oreille River. It is right below Albany Falls, approximately in that area, and the Pend Oreille Public Utility District is tryig to to a job of financing. Once they get that out that will be one of those early projects that will come along. We are very hopeful that will be done rapidly.

The other one is the Pelton project by the Snohomish Public Utility District, just a little north of Seattle. They have some problems to be worked out from the standpoint of engineering and finance, but they are interested, and are proceeding as rapidly as possible.

With respect to the next two projects in that 1,000,000 kilowatts of non-Federal, first I would like to call on Mr. Frank Warren, the executive vice president of the Portland General Electric Co., that would like to build the Pelton project on the Deschutes River, in Oregon.

Mr. Warren, if you will, please.

STATEMENT OF FRANK WARREN, EXECUTIVE VICE PRESIDENT, PORTLAND GENERAL ELECTRIC CO. OF PORTLAND, OREG.

PORTLAND PROJECTS

Mr. WARREN. Mr. Chairman, Portland General Electric Co. has in process and under development three projects, two of which are rather small additions to existing stations, totaling 15,000 kilowatts, $3,000,000; 5,000 of that will come in operation December, 1951; and another 10,000 in the fall of 1952.

We have also been endeavoring to procure a license for construction of the Pelton project on the Deschutes River, a total of 120,000 kilowatt capacity, $22,000,000.

If we can secure prompt approval of this project from the Federal authorities, the construction will be started in the fall, and we estimate the project will be on the line in the summer of 1953.

Senator CAIN. Is your application before the Federal Power Commission?

Mr. WARREN. Yes. We have completed our hearings and we are now awaiting the decision.

Chairman MCKELLAR. As I sit here and listen to you gentlemen tell about the great shortage of power and the great amount that you expect to manufacture soon, I am wondering what the demand is. What is the large and unusual demand for power due to in your State?

PRESSURE OF POPULATION INCREASE AND MECHANIZATION

Mr. WARREN. As far as our own system is concerned, it has arisen from a number of different causes. One of the most important of these is the tremendous growth of population in the area. Another very important cause of it is the increasing tendency to mechanization of industry. In other words, all over the country there has been a very definite tendency to provide each worker with more mechanical horsepower to do more work.

Chairman MCKELLAR. Is it due in part to the use of electricity in country homes and farms?

Mr. WARREN. Yes. We have had a very profound increase in that line. We have had in our own system a better than 60 percent saturation of electric water heaters and a higher saturation of electric ranges, and 40 percent of our customers are rural and farm customers. We are also experiencing a very rapid increase in irrigation loads for people even in our area, which is normally thought of as a normally wet region, but, during the period of April to September, it is quite dry many years. There is a lot of irrigation going on.

PERCENTAGE OF RURAL AREAS ELECTRIFIED

Chairman MCKELLAR. Of course, you cannot be accurate about it, and I do not expect you to be, but I would like to know what percentage of the homes of the rural population use electricity in your area.

Mr. WARREN. In our particular area, Senator, we are practically 100 percent electrified. I would say in excess of 99 percent of the rural homes in our area do have electricity.

Senator MAGNUSON. I might say, Mr. Chairman, that the States of Washington and Oregon are the two highest in the world in rural electrification. We are well over 95 percent over-all electrified. That is quite a record.

Mr. ERDAHL. Just on that very subject I have a brief statement.

The city of Tacoma reports in excess of 6,500 kilowatts per year for domestic customers, which is five times the national average.

That is where we run up against the problems. Our people out there use electricity, and it is natural that they should use electricity. We have very cheap electricity and the cost is the lowest in the country. They use it at a tremendous rate.

ATTITUDE OF PRIVATE GROUPS ON FEDERAL PROJECTS

Senator MAGNUSON. Some of them build homes without chimneys and use electricity for heating.

May I ask just one question that I think is pertinent for the record?

We have listened to the private people tell what they are trying to do, to the best of their ability, also from the public-utility district and the municipalities. Now I think it would be pertinent for the record to ask all these people if they are in unison in favor of these Federal projects also, to integrate what they are trying to do.

Mr. ERDAHL. This statement will bring that out.

I am always overlooking something closest to my heart, and it would be terrible if I forgot to call on the Tacoma city light superintendent, and ask him to report on The Dalles project.

Frank, will you do that, please?

STATEMENT OF J. FRANK WARD, PRESIDENT, AMERICAN PUBLIC POWER ASSOCIATION, AND SUPERINTENDENT, CITY LIGHT, TACOMA, WASH.

TACOMA PROJECTS

Mr. WARD. Tacoma has spent over $700,000 of its own money in investigation of Cowlitz River. The total installed capacity of these two dams would be 460,000 kilowatts. We made our application to the Federal Power Commission for license in December 1948. Unlike the consideration given to the application of the Washington Water Power Co., which received its license within 60 days after the time it was filed, our license has not yet been granted.

There are, of course, conditions that have prevented that.

Chairman MCKELLAR. In a city like Tacoma, from what plants, public or private, do you get the main portion of your power?

Mr. WARD. We have four hydroplants and two steam plants. Up until 1947, except for the period when we were building the last two hydroplants, we supplied our own power requirements from those plants using energy which we received from the city of Seattle. The two municipals operate very closely together and conserve the water on the system for the benefit of both.

Since August 1947 we have had to buy power from the Bonneville Power Administration, and we now buy about 67,000 kilowatts, which represents about 25 percent of our total load.

This new development which we plan, of course, would meet our needs for some years to come. We were fortunately forehanded

enough to want to get this plant built long before the Korean situation developed; in fact, we had no special foresight, but we did plan this project and have been working on it continuously for something over 4 years.

PROBLEM OF DESTRUCTION OF FISH

The thing that stands in its way, or the obvious argument made against it, is that it would destroy fish, but it is on the tributary of the Columbia River which is in what is called the lower Columbia River area.

We are somewhat surprised that the Department of the Interior could support a request for appropriations for projects on the main stem of the Columbia, such as The Dalles and Ice Harbor, and others, where apparently the fish problem is not of so much concern to them as the fish problem on our own projects.

We have been effectively prevented from proceeding with our project because of the representations made by the Fish and Wildlife Service and the State agencies which receive their inspiration from the same source.

We are much disturbed about the implication that it is more important for the Federal Government to spend its money for projects on the main stem of the Columbia River than it is for a municipality like Tacoma to spend its money to meet its own needs.

That is disturbing not only to us but disturbing to all the public power people in the Northwest.

I believe I could say safely that such a situation would be disturbing to all the members of the American Public Power Association, of which I happen to be president. The American Public Power Association supports the request of the utilities in the Northwest for these appropriations.

I have a statement here which I would like to have included in the record, covering that point. While attention is directed particularly to the Northwest, the association also supports the requests for appropriations in other parts of the country too. We feel in Tacoma that the situation is so critical that we are justified in going to any lengths to secure additional power supply for our people.

I might say that in the city of Tacoma we have defense industries without which the Government could not get along. We have chlorine production, electrolytic copper, we have pulp, and we do supply directly the Fort Lewis and McChord Fields.

During the last war we were the main source of power supply for the navy yard at Bremerton, through an interconnection with the Bonneville system. We have a very important place in the defense picture. If the shortage were to develop, which we think could develop in a critical war year, there would be a very serious question as to which of these defense agencies should be cut off in the interest of keeping aluminum on.

NEED FOR MORE POWER

We are disturbed about the great amount of aluminum that comes into our area. We think we should have been allowed to have the power which the Columbia River can produce for a more well-rounded-out economic development, rather than to see Federal agencies selling that power to large industries in large blocks, somewhat, we fear, for the purpose of presenting a better argument for appropriations.

We believe that the power should be made available to the agencies in the area. We are well able to solicit industries; in fact, Tacoma has now prospective industries which alone could absorb 140,000 kilowatts out of the contemplated 460,000 which we will develop on the Cowlitz.

Chairman McKellar. As I understand you, you have four hydro plants and two steam plants and still you do not have enough power for your needs, and you have to get 25 percent of your power from the Bonneville Dam; is that correct?

Mr. Ward. That is right. Our load has doubled every 8 to 10 years since the first hydro plant was built, in 1912. This project which we have under consideration should have been started in 1945, at least, and if we had been able to get the proper support for it and the proper action on it from the Federal Power Commission, and with the support which we think is justified from the Department of the Interior, instead of now waiting and struggling to get the approval of the license, we would have had the project built and in service and we would be able at this time to make a contribution to defense which the area ought to be able to make and cannot make.

Senator Cain. Your intended increase of 460,000 kilowatts will cost approximately what?

Mr. Ward. It will cost the city about $142,000,000 and we propose to finance that by revenue bonds of our own issue. We have not sought any assistance from the Federal Government, nor do we contemplate seeking any.

I might say that totalling up these projects that have been mentioned here, they total close to one million and a half kilowatts capacity, which can be added by the local agencies, at a cost of some $361,000,000.

PROGRAM REPRESENTS LARGE LOCAL CONTRIBUTION

Now, compared with the program that is before the Congress, that is a very definite contribution by the local agencies, and does not warrant the conclusion on anybody's part that we are seeking to have the Government do what we are unable to do ourselves.

Senator Cain. If you are able to increase your generation through non-Federal utilities, by approximately a million kilowatts, what then would be the percentage approximation between non-Federal and Federal generation of power?

Mr. Ward. I would say that, considering the projects that are contemplated for development on the Columbia, the division between Federal and non-Federal would probably be about the same, that is, if we add 1,500,000 kilowatts on these non-Federal developments, there are contemplated Federal developments which would add considerably more than that.

Senator Cain. Permit me to put the question the other way, then. What is the percentage difference between the Federal and non-Federal producers of power today?

Mr. Ward. At the present time it is about equally divided, about 50–50.

Senator Cain. Mr. Chairman, that certainly gives evidence of an undeniable fact that the non-Federal utilities in the Pacific Northwest are doing everything possible, and spending their own money to do it, to maintain and assume their share of responsibility for the development of our great country.

(The statement of J. Frank Ward is as follows:)

STATEMENT OF J. FRANK WARD, SUPERINTENDENT, CITY LIGHT, TACOMA, WASH., AND PRESIDENT, AMERICAN PUBLIC POWER ASSOCIATION

As president of the American Public Power Association, a service organization representing over 700 publicly owned electric utilities in 33 States, I urgently request this committee to restore the funds which were eliminated by the House for the hydroelectric power projects in the Pacific Northwest.

In making this request, it is not my intention to indicate our disinterest in Army Corps of Engineers projects in other parts of the country for which funds were reduced by the House. At a time when the electric industry—both public and private—is of necessity engaged in the largest expansion program in its history, the projects in other sections are equally meritorious and necessary. However, all leaders in the power industry are agreed that the Pacific Northwest is the No. 1 shortage area insofar as electric power supply is concerned, and for that reason I am directing my statement to the problems of that area.

As recently as June 22 Clifford B. McManus, at that time Administrator of the Defense Electric Power Administration, addressed a letter to Senator Carl Hayden, chairman of the Department of the Interior Subcommittee of the Senate Appropriations Committee, pointing out the seriousness of the power supply situation in the Pacific Northwest, and the need for restoring appropriations cuts made by the House.

"Unless these cuts can be restored in the Senate," Mr. McManus said, "the critical and unsatisfactory electric power situation in the Pacific Northwest will become even more serious and vital production of defense materials in this region cannot be obtained because of an inadequate electric power supply. This opinion is concurred in by practically everyone who is familiar with the situation.

"In the Pacific Northwest, however, the power supply situation is critical and will remain so until some of the larger unauthorized hydro projects can be constructed and placed in operation, probably in 1955 or 1956.

"Even under median water conditions, the power supply situation will remain critical at least through the 1953–54 storage control period unless projects now under construction can be completed on schedule and construction of some of the projects which can be brought into service in a comparatively short time can begin in the near future and constructed on an expedited schedule. Specifically the Pelton and Cowlitz projects which are now before the Federal Power Commission for licensing, and can be constructed in 2 years, would materially improve the power situation before the 1953–54 storage control period and license to permit proceeding with their construction should be granted. To prevent the power situation from deteriorating to any greater extent, projects now under construction, such as Albeni Falls, McNary, and Chief Joseph must be maintained on schedule.

"In order to restore capacity in the Pacific Northwest to an amount which will be sufficient to meet capacity requirements subsequent to the 1953–54 period, appropriations for new projects not yet authorized must be obtained at an early date, and it will be necessary to continue the new starts in the future in order to maintain a satisfactory power situation in the Pacific Northwest after a reasonable balance between load and capacity is once obtained.

"In the opinion of Defense Electric Power Administration the Federal projects most necessary for an early start are The Dalles, the Palisades, Ice Harbor, and some additional storage on the upper reaches or tributaries of the Columbia River."

It is important to note that Mr. McManus' letter specifically mentions the four key projects for which funds were reduced by the House—namely, McNary, Albeni Falls, Ice Harbor, and The Dalles.

The extreme seriousness of the power supply situation in the Pacific Northwest is further accented by the accompanying table, which has been prepared by the Bonneville Power Administration. You will note that, under minimum water conditions—even without the cuts imposed by the House—the Pacific Northwest would have a power deficit continually from the winter of 1951–52 through the winter of 1957–58. If Ice Harbor and The Dalles are not built, this deficit would total 924,000 kilowatts by the winter of 1957–58. Additionally, if the House cuts on McNary, Albeni Falls, Lookout Point, Dexter, and Hills Creek Dams are not restored, this deficit would total 1,144,000 kilowatts by the winter of 1957–58.

In every section of the country electric power is the very lifeblood of industry. But in the Pacific Northwest, where there are no other energy-producing fuels such as coal, oil or natural gas, hydroelectric power is the very foundation for the entire economy of the region. The Pacific Northwest has the largest potential hydroelectric resources of any area in the country.

Although many of these hydroelectric resources are of such vast scope that they can be developed only by the Federal Government, the local public agencies in the Pacific Northwest have in the past, and stand ready now to do their share in developing these resources. The Pacific Northwest utilities are not attempting to shift their responsibilities to the Federal Government. The electric system of which I am superintendent—Tacoma City Light—now has an application pending with the Federal Power Commission for a permit to build two hydroelectric projects on the Cowlitz River which would have a capacity of 460,000 kilowatts. Our city is prepared to spend $142,000,000 to develop this source of power. Considering the size of Tacoma, we certainly cannot be said to be shirking our responsibilities when we are preparing to spend such a vast sum on projects for our own city.

However, for the entire Pacific Northwest area, we must face the fact that the Federal Government has become the major power supplier. Having undertaken this responsibility, the Federal Government cannot hold in jeopardy the economy of an entire region by failing to provide adequate electric power. In continuing the orderly development of the hydroelectric resources of the Pacific Northwest, the Federal Government is only fulfilling its obligation to the people of the area.

In view of these facts, it is most urgent that this committee restore the funds which were eliminated by the House.

Average loads and resources of the western group utilities of the Northwest Power Pool, average over storage draw-down period

[Thousands of kilowatts]

	Minimum water conditions						
	1951–52	1952–53	1953–54	1954–55	1955–56	1956–57	1957–58
Average loads:							
Firm	2,851	3,072	3,511	3,815	4,024	4,231	4,488
Interruptible [1]	310	554	457	504	506	506	506
Available for potential industrial load, steam displacement and reserves						900	1,300
Total	3,161	3,626	3,968	4,319	4,530	5,637	6,294
Resources:							
Non-Federal [2]	1,095	1,373	1,507	1,503	1,460	1,411	1,347
Federal [3]	1,467	1,657	2,014	2,535	2,972	3,807	4,727
Total	2,562	3,030	3,521	4,038	4,432	5,218	6,074
Average surplus	−599	−596	−447	−281	−98	−419	−220
Less:							
Ice Harbor [4]					−78	−203	−279
The Dalles						−126	−425
Total					−78	−329	−704
Adjusted average surplus	−599	−596	−447	−281	−176	−748	−924
Less:							
McNary (1 year delay)			−113	−302	−118		
Albeni Falls		−110	−110	−122	−132	−145	−160
Lookout Point				−19	−35	−35	−35
Dexter				−9	−12	−12	−12
Hills Creek					−6	−13	−13
Total		−110	−223	−452	−303	−205	−220
Net adjusted average surplus	−599	−706	−670	−733	−479	−953	−1,144

[1] The above loads do not include 80,000 kilowatts of interruptible aluminum load in 1952–53 and 120,000 kilowatts of interruptible aluminum load in 1953–54, each of which could only be served under better than median year water conditions.

[2] Non-Federal resources include energy imports from the Eastern Group Pool Utilities and the British Columbia Electric Co., and miscellaneous purchases from industrial plants and nonpool utilities in the Western Group area.

[3] Federal resources are based on schedule T installations, and do not include possible import of energy over an Oregon- California interconnection.

[4] The Ice Harbor resource figure for 1957–58 includes 78,000 kilowatts of prime power at the Lower Monumental plant. Construction of this plant would follow Ice Harbor.

FEDERAL PROJECTS STILL A NECESSITY

Mr. ERDAHL. I want to point out that these non-Federal projects we are talking about should not detract from the need of the Federal projects. They are needed, too, if we are going to meet this rapid demand on our combined systems in the area. They are very important, those non-Federal projects, and these Federal projects are likewise very important to do the job.

Senator CAIN. Would you permit me, as a member of this committee, to say that unless I was convinced that the non-Federal utilities were actually doing a bang-up job and endeavoring to do everything they could to increase our production and develop the Federal economy, I would not think you were on sound ground in asking for a number of the Federal projects under consideration. I merely seek to have the record establish that you are doing that sort of job which justifies support from the Congress for Federal appropriations.

Mr. ERDAHL. Mr. Smith, you have a word on that line?

Mr. SMITH. This is in response to the question of the chairman—I think it was the chairman—as to what the attitude of the people is in the Northwest toward the proposals before the committee.

I have prepared on behalf of the two clients that I represent, a statement, copies of which I have furnished to the clerk of the committee, and I would like to have it made a part of the record.

Chairman MCKELLAR. Without objection, the statement will be made a part of the record.

(The statement referred to is as follows:)

STATEMENT OF ALLAN A. SMITH, COUNSEL FOR PACIFIC POWER & LIGHT CO., MOUNTAIN STATES POWER CO.

Gentlemen of the committee, I appear before you in connection with your consideration of H. R. 4386, the civil functions appropriation bill for fiscal year 1952, and in aid and support of the presentation made by Mr. Erdahl and others who have or will appear on behalf of the Pacific Northwest Utilities Conference Committee.

I will identify myself and whom I represent. My name is Allan A. Smith. I am a lawyer, practicing in the State of Oregon, a member of the law firm of Laing, Gray & Smith, of Portland. We are general counsel for Pacific Power & Light Co. and Mountain States Power Co. I speak for them, although I believe what those who have preceded me have said and what those who follow me will say—including my own presentation—is on behalf of the entire area, rather than for any particular portion or interest.

That you may have an understanding of the interest of these two utilities in the matter pending before you, I think I should take a moment to tell you something about them.

Pacific Power & Light Co. serves in the city of Portland, the northern tier of counties in the States of Oregon, central Oregon and southeastern Washington. It has 143,741 customers who in 1950 used 1,384,027,000 kilowatt-hours, which they paid for at an over-all average rate of 1.24 cents per kilowatt-hour—one of the lowest rates in the Nation—and residential customers used an average of 4,765 kilowatt-hours per annum per customer, also among the highest in the Nation and 2.6 times the national average. In order to provide the needs of these customers, the company has a generating capacity in the amount of 179,567 kilowatts, but with a peak load of 314,533 kilowatts must rely on outside source for the difference. The Bonneville Power Administration in 1950 provided 54,399,000 kilowatt-hours and the Bureau of Reclamation 19,922,000 kilowatt-hours of the deficiency. To keep itself abreast of the needs of its customers, in addition to an expenditure of $26,450,000 at Yale referred to later, it has a normal construction budget for 1951 of $6,800,000. The company in 1950 paid in Federal, State, and municipal taxes $4,315,941, and has 12,420 stockholders scattered over the Nation.

Mountain States Power Co. serves a substantial portion of the Willamette Valley, the north half of Lincoln County, and most of Coos and Tillamook Counties within the State of Oregon. In 1950 in this area it had a peak load of 125,000 kilowatts, it distributed 467,500,000 kilowatt-hours to 68,132 customers and a population of 191,880 people. This was supplied by 12 steam plants, the California Oregon Power Co., and 159,000,000 kilowatt-hours by Bonneville. It paid Federal taxes in the sum of $627,242, and State, county, and city taxes in the sum of $688,668.

It has approximately 6,700 stockholders scattered throughout the Nation. This company, in order to keep up to the parade of ever-marching demands, has a budget for this year of $2,800,000.

From the figures I have just given you, it is readily apparent the extent to which these companies are dependent on outside generation to carry their respective loads, and are substantial purchasers of Bonneville power. The construction of Bonneville, Grand Coulee, Hungry Horse, McNary, Chief Joseph, and Albeni Falls, and the authorization of many other projects by the Federal Government, has slowed up construction of generating facilities by other agencies. This has occurred because existing distributing agencies are the logical means of distributing power from those projects in accordance with purposes of the acts authorizing their construction and the sale of the product. If Uncle Sam is not to be left holding the sack, the power must be sold, and the agencies in the Northwest are disposed to cooperate to see that it is sold. In that kind of a program, worked out wisely and with ideologies reduced to a minor role, there is little to justify large scale developments by other agencies. There isn't much sense in building projects solely for the purpose of competing with your own Government. But that means also the Government must play its part in both development and equitable distribution of the benefits. Another slowing up process has been the attitude of some agencies of the Federal Government in opposing construction by other agencies.

In any event, without searching for reasons or pointing the finger at anyone, we in the Northwest are confronted with a serious power shortage, and a certain amount of responsibility for that condition rests upon the Federal Government. We are not expecting that the Federal Government take the whole burden in relieving our situation, but we do expect that it shall carry its part. Attention has already been called to projects that are awaiting action by Federal agencies to go ahead, some that are under construction. I would particularly call to your attention the fact that one of my clients, Pacific Power & Light Co., is now engaged in the construction of what is referred to as the "Yale project," which will cost $26,450,000, scheduled for completion November 1, 1952. This project will add 100,000 kilowatts of peaking capacity annually and 550,000,000 kilowatt-hours of energy.

Reference has already been made to the proposal of the city of Tacoma to build power plants on the Cowlitz River; the construction program of the Washington Water Power Co. at Cabinet Gorge; the additional generation by the city of Seattle; and the Pelton project of Portland General Electric Co. on the Deschutes River in the State of Oregon pending now before the Federal Power Commission for a license. I point these out to you to make clear that we are not standing idly by and doing nothing. These plants will not only help to relieve the existing situation but in their operation, coordinated with the Federal projects, will add substantially to the resources of the area. To give you some idea of that, it is estimated that the present coordinated operation has added as much as 600,000 kilowatts to the area resources.

On the assumption that Congress continue the construction of McNary on its present schedule and will proceed with the completion of Albeni Falls so that power will be available from both of these projects for the season of 1953–54, it has been estimated that if water is critically low there would be a deficit in that water year of 421,000 kilowatts, in the following year 505,000 kilowatts, and in 1955–56 330,000 kilowatts. If these projects are slowed up by leaving the House action undisturbed, the deficit will be increased by 223,000 kilowatts in 1953–54, 412,000 kilowatts in 1954–55 and 228,000 kilowatts in 1955–56. For this year, 1951–52, the estimated deficit is 391,000 kilowatts.

For McNary there was a request by the Bureau of the Budget of $42,900,000. This was reduced by the House to $36,000,000. The appropriation for this project in 1951 was $39,700,000. The appropriation for this project should be restored to the amount requested by the Bureau of the Budget, in order that this construction may go forward and the power be made available at the earliest possible date.

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The Bureau of the Budget requested $10,000,000 for Albeni Falls. The House made no appropriation at all. Last year, the appropriation was $2,900,000, and the project is in process of construction. This is particularly necessary to the Northwest because of its storage features. When the rivers are high the water is stored and released when they are low, and thus add to the product from every dam on the Columbia. This project is of vital need to the Northwest.

Both of these projects should go full speed ahead.

This group has as a general program refrained from endorsing particular projects. There has been recognition of the need for additional power in the area and it has seemed best for the group to endorse a general program rather than get behind particular projects, and thus involve itself in community interests and other special controversies. I am in accord with that principle and have no disposition to vary from it at the present time. I cannot, however, refrain from pointing out to the committee that there is a vital need in our area for the commencement of new projects by the Federal Government, and should Congress recognize the responsibility of the Federal Government respecting such projects, then particular attention should be given to those projects for immediate construction which best fit the needs and the demands of the area.

For instance, the proposed project at The Dalles is located near the load center and the product can be marketed over existing transmission facilities. These are factors of importance and deserve special emphasis. I think the Northwest would be definitely in accord with an appropriation for the commencement of construction of The Dalles project at the earliest possible date. This statement is made without derogation of any other project, nor is opposition to such projects to be inferred from this reference to The Dalles. The Dalles is a good project—will provide a large block of power and can be marketed with the smallest outlay of marketing expense.

I urge the committee deeply and sincerely that the appropriation for McNary be raised to the amount requested by the Budget Bureau and that an appropriation be made for Albeni Falls in the amount requested by the Budget.

The Federal Government has to a large degree preempted the development of the Columbia River. It should recognize the obligation resulting from such preemption. That the development may go forward in an orderly manner, it is essential that new construction be authorized and appropriations made therefor. An authorization and appropriation by this Congress for the commencement of an additional project will not result in the completion of such project before the area needs the product. It is therefore essential to an orderly program that this Congress make such appropriations as are necessary to start new projects on the Columbia. We urge upon this committee that it take such step at this time. Only Congress can liquidate the obligation assumed by the Federal Government.

I thank the committee for its attention.

Mr. SMITH. In this statement the proposals before the committee have been endorsed on behalf of those clients that I particularly represent. I am sure that the other private utilities, I think all of whom are represented here, are in agreement with that program.

I do want to add to the written statement this observation, because I think it is only proper that there be no misapprehension on the part of the committee or anyone else as to just what the situation is in the Northwest.

POSITION OF PRIVATE UTILITIES

The private utilities, under the existing law and the administration of the Federal facilities, sit at the foot of the table, so far as the distribution of the benefits is concerned. The law itself provides for certain preferred customers.

Chairman MCKELLAR. What customers are those?

Mr. SMITH. Public agencies and cooperatives.

Under a program of building up the Northwest a large industrial load has been built up by Bonneville Power. We have been buying power from the Bonneville Administration since 1947 on a year-to-year basis. We are now negotiating a contract on a little longer

term, for a period of 5 years. In the contract which expires on September 30 of this year the preferred customer load was something less than 600,000 kilowatts, the industrial load something more than 600,000 kilowatts. These contracts are drawn in a manner so that there is submitted to us a list of the industrial loads which are to have precedence over the supply to us. The list, so far as industry is concerned, has grown from 600,000, approximately, in 1950 to a list submitted in connection with our present negotiations to 1,116,000 kilowatts, almost doubled in that period of time. The preferred customer load is growing gradually, until at the end of the contract they will be receiving 1,123,000. That is 1955–56.

Now this operates, of course, to reduce the amount of power available to the private utilities to a minimum, and much less, up to the present time, than our actual needs and delays the time when our customers are on an equality with their neighbors in the area. We serve 750,000 customers and hundreds of them are industries furnishing war supplies. A substantial portion, of course, are domestic and rural consumers, denominated as special beneficiaries under the Bonneville Act. These customers, domestic, rural and industry, have made the same contribution to these projects as everyone else, and are subject to the same demand, taxes and otherwise, as those now enjoying the benefits of public power.

Common justice to all users seems to demand there be an equitable distribution of benefits from these projects to all people in the region.

PUBLIC POWER PROBLEMS

Favoritism in governmental affairs is abhorrent to everyone, and is the rock which has wrecked every nation since the beginning of time. It should no more be practiced by the Government, when it engages in a business activity, than when it is engaged in purely governmental affairs.

If this is a sound principle—and we think that it is—Congress should see to it that it is recognized in the sale of the products from these projects.

Senator MAGNUSON. Mr. Smith, right there, you would not have any fear of that situation if we could go ahead with our program and develop the power so that the power would be available?

Mr. SMITH. That is correct, but, of course, when the Federal Government reaches the point where there is plenty of power, then these principles do not enter into it at all.

Senator MAGNUSON. Because of the fact we are now so tight and the situation is so critical, some of these inequities could creep in?

Mr. SMITH. Yes; they have crept in.

Mr. ERDAHL. Thank you, Mr. Smith.

While that situation does present some real problems, I think we will say to the committee that the public agencies that are working cooperatively with the private agencies are doing their level best to share the shortage and work these things out on as equitable a basis as is possible.

Mr. SMITH. I subscribe to that statement. I think there is pretty general agreement among the public and private agencies in the Northwest on the soundness of the principles that I have suggested in this particular statement. I certainly would not want the committee

to get the impression from what I have said that that means we are just not completely firm in our endorsement of the program that is now pending before the committee. That is not the case. I am giving this situation in order that the committee and everyone may understand exactly what exists.

I want to add another thing. I would not want anyone to get the impression from what I have said that we are opposed to industry coming to the Northwest. That is not the case. We do not go quite as far, perhaps, as some others do, in respect to it, because we do believe that our obligation is first to take care of the people who are there, to take care of the war industry that is there, and then fit in with whatever comes. There has never been lack of cooperation on the part of everybody in getting industry into the Northwest, and we are not going to change that program at all. We are doing a pretty good job out there getting along. I think probably a pretty good pattern to be followed generally. We have not all our problems settled. We have some of our ideologies that sometimes come into the picture, but we have done a pretty good job getting along, and we are going to keep on doing it.

Chairman McKellar. What you have said about getting along is more necessary for our Nation than ever before.

Senator Cain. Whenever inequities develop, you ought to make them known to us and this committee.

Mr. Smith. That is the only purpose in making the statement. I am not throwing rocks at anybody. We are simply making a statement of the situation.

Mr. Erdahl. I think it would be most pertinent at this point, if the committee would permit, to quote a letter which was written only 3 weeks ago by Mr. T. B. McManus, in the Defense Electric Power Administration, to Senator Hayden, chairman of the Department of the Interior Subcommittee. I refer to this letter to show my point that our basic problem of power supply is this: In spite of all expenditures made by the Federal Government and by the utilities themselves, in the intervening years since 1947—that is the same letter that Senator Magnuson has put in the record, and there is one paragraph that I would like to bring out particularly for your information, and let the rest stand for the record.

Senator Cain. Are you going to read the first paragraph, on page 5?

Mr. Erdahl. Yes.

Senator Cain. I would like to call the attention of the chairman and Senator Young to it, because with reference to that paragraph, I would like to ask several questions, if I may.

CRITICAL POWER SUPPLY SITUATION

Mr. Erdahl. Even under median water conditions, the power supply situation will remain critical at least through the 1953–54 storage control period unless porjects now under construction can be completed on schedule and construction of some of the projects which can be brought into service in a comparatively short time can begin in the near future and be constructed on an expedited schedule.

Specifically the Pelton and Cowlitz projects which are now before the Federal Power Commission for licensing, and can be constructed in 2 years, would materially improve the power situation before the

1953–54 storage control period and license to permit proceeding with their construction should be granted.

ADDITIONAL KILOWATT CAPACITY

Senator CAIN. What is the total intended increase in kilowatts if both the Pelton and Cowlitz projects are constructed?

Mr. ERDAHL. It is 460,000 on the Cowlitz and the Pelton is 120,000.

Chairman MCKELLAR. Let me ask you this question, and I ask the Senator, as well as you: Is it possible that this unusual demand for power or this increasing demand for power is due to the inflationary status of our country at this time?

Mr. ERDAHL. I do not think so, Senator. As the pattern shows, and Mr. Ward outlined, this is a pattern that we have had in the Northwest dating as far back as 1912 and 1913, 1914, and 1915, except as we grow larger we are talking in larger amounts, and each time you double, of course, you are getting into pretty good-sized figures. That is what we are up against.

Chairman MCKELLAR. Is the statement that he has just made the general opinion of the gentleman?

Mr. ERDAHL. If anyone objects to that statement I have just made, they might say so. That probably would be the best way.

Senator MAGNUSON. I have been fairly close to this power situation for about 20 years in the State. There has not been any change, as you point out, in the pattern. It is constantly going up. Domestic consumption has doubled itself every 10 years, the demand for domestic consumption; of course, that is due to the fact that housewives use more electricity and more electrical appliances.

Chairman MCKELLAR. The rural people out there are using more electricity than they used before? Does that not have something to do with it?

Senator MAGNUSON. That is true.

Another thing I think the record ought to show is that the aluminum plants, and Dr. Raver can correct me if I do not have my figures correct, take about 40 percent of the power load now. Is that correct?

Dr. RAVER. Yes.

Senator MAGNUSON. Now they have come into being in the last 10 years; 40 percent of our power load is taken by these aluminum plants. Then the atomic energy plant has a hold on a great amount which cannot be made public but you add those two and you have a 50-percent increase in load caused by purely defense things, what we are talking about.

COMPARISON OF FEDERAL-PRIVATE POWER CAPACITY

Senator YOUNG. Have the power companies built a great number of dams in the Pacific Northwest in the past?

Senator MAGNUSON. Yes.

Senator YOUNG. Are they building any now?

Senator MAGNUSON. That is what we are talking about. All these people are non-Federal.

Senator YOUNG. Are they building many of these on their own?

Senator MAGNUSON. All on their own.

Senator CAIN. The percentage now is about 50–50 between the non-Federal and the Federal projects.

Senator YOUNG. What was the percentage in the past?

Senator CAIN. It must have been far greater in the direction of non-Federal.

Senator MAGNUSON. Until Bonneville came into existence, it was all non-Federal.

Senator YOUNG. Is the trend now more toward Federal projects?

Senator MAGNUSON. No. Since the load has increased it has been fairly even. The trouble with it is that it would be nice if you could have all these but the trouble is financing. It was well pointed out that you cannot finance a dam that is going to take 10 or 12 years to build, with private financing, before it starts to pay back. No private concern would have financed Grand Coulee, which is going to cost hundreds of millions of dollars.

Senator YOUNG. Private power would have a little more trouble getting scarce materials, like steel?

Senator MAGNUSON. I do not mean now, I mean prior to this steel allocation. The allocation is the same for power dams, regardless of whether they are Federal or non-Federal.

Chairman MCKELLAR. I would like to ask Senator Magnuson what the effect has been on the price of power since the Government started building these dams?

Senator MAGNUSON. Of course, I have always maintained it has lowered the price of power.

Chairman MCKELLAR. What is your opinion, Mr. Erdahl?

PRIVATE POWER RATES

Mr. ERDAHL. Senator, if I did not know you better, I would say that is a stacked question, because you are talking to a guy that has the lowest power rate in the world. Mr. Ward and I represent the city of Tacoma. We sit before you unashamed and admit that we have the lowest power rates in the world.

Chairman MCKELLAR. What is your power rate?

Mr. ERDAHL. For our utility, domestic?

Chairman MCKELLAR. Yes.

Mr. ERDAHL. Our rate gets down to a half cent a kilowatt hour.

Chairman MCKELLAR. That is remarkable.

Senator MAGNUSON. But that is not solely due to public power as against private power; it is due to putting all these things together. Also, a great factor is that all these are together in multiple-purpose projects, which are producing power, and everything is put together in the pool. Like anything else, pooling your resources results in a cheaper rate, of course.

Chairman MCKELLAR. You have a State power commission?

Senator MAGNUSON. Yes, we have the public utilities commission, but, in Seattle, Congressman Jones and I can remember when we had intense competition between Seattle City Light and Puget Sound Power & Light, and due to that competition, the public got a great deal of benefit. The rates kept going down and down.

Senator CAIN. Mr. Chairman, the witness is presently reading from a letter by the Chairman of the Defense Electric Power Administration, Mr. McManus. In this letter, Mr. McManus urges that

immediate consideration be given to a clearance for the Cowlitz and Pelton projects to go ahead. They are non-Federal projects. If constructed, they would produce and generate additional hundreds of thousands of kilowatts of power that we badly need.

Mr. Ward has testified that his first application, if I understood him correctly, to the Federal Power Commission, was back in——

Mr. WARD. December 28, 1948.

DEFENSE CLEARANCE FOR PRIVATE POWER PROJECTS

Senator CAIN. The problem at the moment appears to be that a Federal project can get a clearance to result in construction much more rapidly than can a non-Federal project, and I think now is the time when we should ask some questions, what the reasons are that prevent non-Federal people from producing new power for the benefit of everybody.

So, Mr. Erdahl, tell me what questions have been raised by the two non-Federal projects, Cowlitz and Pelton.

Mr. ERDAHL. May I ask that Mr. Ward reply to that, to be supplemented by Mr. Warren?

Mr. WARD. The principal question raised is that of conservation of fish. The claim has been made that these two projects would destroy very important fish resources. When we first secured the rights on the Cowlitz River and realized that we would have to develop it, we started out with the assumption that we would develop the river in such a way as to make the maximum benefit, obtain the maximum benefit with regard to both the resources of fish and power, and with the idea that we were to go ahead with the hydro development, giving full consideration to the rights of the salmon industry to be protected.

We have spent a great deal of money investigating fish problems. We have conducted experiments, which have never before been conducted, with regard to those problems. We have invited the Federal agencies to participate. We have had participation and observation from the State agencies on the matter of handling fish. Our engineers, together with myself, have filed patent applications on a method of handling fish which is new, and which we believe will be recognized as such.

FISH-HANDLING FACILITIES

Included in our project on the Cowlitz River we have the sum of $7,000,000 set aside for fish-handling facilities, merely to protect this fishery resource. We feel it is much better to get 90 percent of the power and 90 percent of the fish than it is to have all the fish and none of the power, or have all power and no fish.

Our project has been the subject of very extensive hearings before the Federal Power Commission. I have spent almost 6 weeks in Washington on those hearings. We have had technicians who are thoroughly familiar with the fish problems assisting us in the design of facilities to handle the fish.

We have contacted every known source of information as to ho to take care of them. We are confident that we can build thos projects without destroying the fishery resources of the river.

Chairman McKellar. Let me ask this general question right there: What is the attitude of the fishery industry, which is a tremendous industry, as to these experiments?

Mr. Ward. Our experience is that their position is one of complete opposition. They want no dams built on the Cowlitz River.

Senator Magnuson. I cannot resist making this statement because these are two dams that are being built over here on two rivers. The fishery people have no opposition to many of the dams we are talking about.

Mr. Ward. I am speaking of our own projects.

Senator Magnuson. We are talking about two dams that the city of Tacoma is attempting to build. The fishery people have expressed opposition to the dams on the Snake River, which is the spawning ground, but the engineers will testify that they will be able to work that out. These dams up here, Albeni Falls and those dams, Grand Coulee, Chief Joseph, that we are talking about, have no opposition at all. It is only as to the Snake River dams and these two non-Federal dams, that they are speaking about now.

Senator Cain. Mr. Ward, does it not stand to reason that if the non-Federal agencies in the Pacific Northwest continue to be prevented from producing additional power, it will therefore be completely necessary for the Pacific Northwest to turn more and more to the Federal Government for the power which is required for the increase of our development?

Mr. Ward. The trend now would be to make us totally dependent on Federal development, except for such developments as we might undertake in the way of steam power generation.

APPROVAL OF FISH AND WILDLIFE SERVICE

Senator Cain. Mr. Chairman, in a real effort to be constructive, I should think that before the hearings are completed, that the Fish and Wildlife Division of the Interior Department, or any other persons who importantly are in a position to prevent the approval of such certificates as are needed by the non-Federal agencies in the Pacific Northwest, be called before the committee to explain in some detail what their position is, in the hopes that we might find a way in which to take the money which is now available and ready for use by non-Federal agencies, and put it to work for the benefit of all of us, without destroying the important fish industry in the Northwest.

Chairman McKellar. Are any of the Fishery people, or representatives of the fish industry here this morning?

Mr. Erdahl. I do not think so, Mr. Chairman.

Senator Magnuson. I hope we will not confuse what is before this committee by a discussion of the fish controversy over two non-Federal dams.

Chairman McKellar. That is a controversy between two private dams and the fish industry?

Senator Magnuson. Yes. As Senator Cain pointed out, there is, I think unjustified, some opposition to one or two of the Federal dams we are discussing here, mainly on the Snake River. I shall be glad to join with Senator Cain in any participation on these two non-Federal dams, regarding the question of their license. It does not affect the Federal dams at all.

Senator CAIN. Except, sir, I raised the question because we are considering the over-all requirement and needs of the Pacific Northwest and to the extent that the non-Federal agencies can do a fuller job, it will relieve in years to come the pressure on the Federal Government, with particular reference to this committee.

May I ask just one further question in this connection, Mr. Ward?

It has been said to me in the last several days that the Secretary of the Interior has written a letter to the Federal Power Commission in which he says that all of Mr. McManus' letter to Senator Carl Hayden of the Appropriations Committee is correct, with the two exceptions being Pelton and Cowlitz.

To your knowledge, have I been correctly informed?

Mr. WARD. We do not have a copy of that information, but we have been informed that such a communication has gone.

Senator CAIN. Might I ask you then how you would reconcile the different approaches taken by different branches of the Federal Government all on the same subject?

Mr. WARD. It has been a puzzle to us throughout our case. We find it very hard to reconcile a responsibility lying with the Department of the Interior for power with one which refuses to recognize the value of the non-Federal contributions of power and obdurately expresses the opposition which has been shown on the Cowlitz River. It does not seem consistent.

Senator MAGNUSON. I hope Mr. Erdahl will go on with this very important letter of the Power Administrator, because he deals now, Mr. Chairman, with the project before the committee at this time.

Mr. ERDAHL. So we can keep it going, Mr. Chairman, if I could ask Mr. Warren if there is anything additional he could add?

STATEMENT OF FRANK M. WARREN, EXECUTIVE VICE PRESIDENT, PORTLAND GENERAL ELECTRIC CO.

FISH-HANDLING FACILITIES, PRIVATE POWER PROJECTS

Mr. WARREN. I think, Mr. Chairman, we can state our position very briefly.

Our experience has been similar to that of Mr. Ward. We have provided in our project $1,000,000 for fish-handling facilities, $100,000 a year to operate them. It is fair to say there is no fish run on the Deschutes at this time. We would be blocking only the upper reaches of the Deschutes and one tributary of the Nisqually, and we are proposing to provide fish-handling facilities to take care of that.

We feel we have an adequate proper solution of the problem and have run into practically the same situation that Tacoma has encountered on the Cowlitz.

Senator MCKELLAR. I received a letter and a statement protesting the Ice Harbor Dam project. Senator Cordon has asked me to have it inserted in the record and it may be done at this point while we are still discussing the problem of the fishing industry in regard to the projects in the Northwest.

(The letter and statement is as follows:)

COLUMBIA RIVER SALMON & TUNA PACKERS ASSOCIATION,
Astoria, Oreg., July 13, 1951.

The Honorable KENNETH MCKELLAR,
Senate Office Building,
Washington, D. C.

DEAR SENATOR: Enclosed herewith is a copy of a statement protesting the proposed appropriation for the construction of Ice Harbor Dam which the members of this Association wish to have filed with the records of the subcommittee on War Department Civil Functions Appropriations of which you are chairman. We are also forwarding a supply of these statements to the clerk of this subcommittee for distribution to the committee members.

The matter of an appropriation for this project has been defeated in the Congress in each of the last three Congressional sessions. In 1950 the Congressional Conference Committee agreed that initiation of this project should be postponed until such time as the effect of McNary Dam upon the valuable salmon runs of the Columbia River could be determined. We believe that this reasoning has as sound a factual basis now as it had then. There has been a great deal of hysteria in regard to this project. Its proponents have declared it a necessity for national defense although its power production will represent less than two-tenths of one percent of the present installed capacity in the United States at this time. We strongly feel that any moneys available for development of this type in this area should be devoted to hastening the completion of the many projects now underway here.

We urge your earnest consideration of this matter.

Yours very truly,

JAMES H. CELLARS,
Executive Secretary.

STATEMENT OF JAMES H. CELLARS, EXECUTIVE SECRETARY, COLUMBIA RIVER SALMON & TUNA PACKERS ASSOCIATION

The membership of the Columbia River Salmon & Tuna Packers Association includes individuals, companies, and corporations engaged in the business of canning, processing, freezing, marketing, and distributing, fish and other waterfood products. The membership, in the course of its regular business, processes over 90 percent of the commercial salmon catch of the Columbia River.

This association protests current proposals before Congress for the appropriation of Federal moneys for the construction of Ice Harbor Dam on the Lower Snake River in the State of Washington for the following reasons:

1. The construction of Ice Harbor Dam cannot be economically justified without the construction of four other structures on the Snake River; namely, Lower Monumental Dam; Little Goose Dam; Lower Granite Dam; and Hells Canyon Dam. The construction of these dams across the Lower Snake River will result in terrific damage to the Columbia River Salmon fishery resource and the practical elimination of the river salmon fishing industry.
2. There does not exist at this time any necessity for the initiation of the construction of these dams upon the basis of—
   (*a*) National defense
   (*b*) Production of hydroelectric power
   (*c*) Establishment of a river navigation system
   (*d*) Reclamation of arid lands
   (*e*) Flood control
3. Available Federal funds for Columbia Basin development should be so appropriated as to assure the earliest possible completion of projects now under way rather than be spread among old and new projects.

THE COLUMBIA RIVER SALMON RESOURCE

There are four major salmon resources in the world today. Only three are available to the Western World. They are the Alaska resource; the Puget Sound resource; and the Columbia River resource. The fourth is in the area of the Kamchatka Peninsula and tightly shut behind the iron curtain. It should be noted in this instance that should this country become involved in a war with Soviet Russia that it is considered probable that operations in the most productive areas in the Alaska fishery would cease at once.

The Columbia River salmon fishery resource, according to published reports of the United States Fish and Wildlife Service (Appendix P, review report of the Columbia River and tributaries, Corps of Engineers, Department of the Army, October 1, 1948), produces an annual revenue of $17,440,000 per year. This figure is based upon the first processing level for the commercial pack which is credited with an annual revenue of $13,700,000 a year. This figure should be appreciated 30 percent to reflect the final value of this pack at retail level, thus bringing the total annual return from the resource to $21,500,000 a year. If this revenue is calculated on the basis of a 4 percent return, it reflects a capital value of $537,500,000. This resource has been utilized for almost a century and in that period has produced well over a billion dollars in new values.

This resource has another value apart from that that can be set by affixing a dollar mark. It produces, according to the U. S. Fish and Wildlife Service, approximately 35,000,000 pounds of protein food annually. Protein food is essential to the life and well being of the human race. Our economists declare that it is one of the most scarce commodities in the world today and they unite in the prediction that this scarcity will increase rather than diminish in future years. Food supply is particularly valuable in time of war. Our amazing production standards are based upon the performance of citizens of the best fed Nation on earth. We cannot afford to sacrifice this national asset to provide power that can be obtained elsewhere or to provide a free highway for a few barge operators.

The resource supplies an income in whole or in part for more than 15,000 people residing in the Pacific Northwest.

It provides the principal subsistence for many Indian tribes residing in the area. When these Indians deeded their tribal lands to the citizens of this Nation one of the considerations was retention of their right to take for their needs from this food supply.

It provides recreation for many thousands of sports fishermen.

DAMAGE THREAT DEFINITE

Our contention that Ice Harbor and companion dams proposed for the lower Snake River will cripple the salmon resource is supported by informed sources with no selfish interest in the fishery.

We will quote from the Review Report of the Columbia River and Its Tributaries noted in a preceding paragraph, appendix, P, page 101:

"The lower Snake dams, collectively, present the greatest threat to the maintenance of the Columbia River salmon population of any project heretofore authorized or constructed in the basin."

In March of 1947 Mr. William Gardner, Assistant Secretary of the Interior, in a Department memorandum dated on March 24 of that year quoted the United States Fish and Wildlife Service as the authority for a statement to the effect that construction of the lower Snake dams would "eliminate" 75 percent of the salmon.

The context, particularly that in the review report, indicated that these statements were made on the basis of modern fish passage facilities being included in this construction.

These contentions will be fully supported by the Oregon Fish Commission and the Washington Department of Fisheries in statements which they are now preparing to submit to your committee.

You may ask why the salmon runs cannot be preserved by the incorporation into structures such as that proposed at Ice Harbor of facilities to pass the fish up and down. The truth is that, despite years of study and the expenditure of millions of dollars, we have only progressed as far as a fairly satisfactory method of passing salmon over a dam up to 60 feet high and have not made any satisfactory progress toward getting the little fish down again without a minimum loss of 15 percent. The dams also have a damaging effect on salmon runs other than the mere passage.

These contentions are borne out by recent action by Mr. Albert M. Day, Director of the United States Fish and Wildlife Service. Mr. Day called a meeting in Seattle, Wash., late in June of this year. This meeting was attended by top biologists of his department and biologists of the fish and game commissions of the States of Oregon, Washington, and California. The purpose of this meeting was to initiate studies to discover, if possible, a feasible way of passing fingerling salmon down over high dam structures. We again call your attention to the statements of the Washington Department of Fisheries and the

Oregon Fish Commission which contain in detail the reasons why high dam structures are severely damaging to anadromous fish.

THE LOWER SNAKE DAMS

The sites of four of these dams, of which Ice Harbor is proposed as the first unit, are on a comparatively short stretch of the Snake River (113 miles) between Pasco, Wash., and Lewiston, Idaho. The original act authorizing construction of these dams and subsequent reference to them in the Rivers and Harbors Act of March 2, 1945, indicates clearly and definitely that the principal reason advanced in requesting this authorization was the establishment of a river navigation channel between the mouth of the Snake River and Lewiston. While the covering guise of power is now advanced as the basis for their construction, much if not most of the urgence for these projects comes from navigation interests such as the Inland Waterways Association, an organization we understand that has been represented before this committee by Mr. West and Mr. Baker.

It is notable that in the brochure supporting the Ice Harbor appropriation entitled "Power For Defense" that no attempt is made to defend the Ice Harbor appropriation by itself. Instead the entire argument ties in Ice Harbor Dam with The Dalles Dam on the lower Columbia and Hells Canyon Dam on the upper Snake, a structure not even authorized to date. The proponents of Ice Harbor have taken this clever method of concealing the small benefits that can be expected from that structure as a unit and instead have added these small benefits to the larger ones they indicate will result from the construction of the two larger structures.

As it is obvious that one dam, or two or three will not accomplish the purpose of creating a navigable channel up the tortuous bed of the Snake, we call to your attention that once construction is initiated on the first unit that the Congress is practically committed to, instead of building one dam, the construction of four dams, all with nominal power potentials, at a cost of close to one billion dollars. We understand from testimony given last year before the Senate Committee on Appropriations that dam number 5, Hells Canyon, is also tightly tied into this unit on the basis that the four Lower Snake dams are not economically feasible without Hells Canyon Dam, and Hells Canyon Dam is not economically sound as a project without the existence of the four Lower Snake dams. In view of the apparent impossibility of unscrambling this economic omelet, we must extend our opposition to the Hells Canyon proposal.

We have tried to outline the value of the salmon resource, its vulnerability to high dams erected in the path of the migrations of this great food fish, and the fact that an initial appropriation for Ice Harbor Dam is in fact an initial appropriation for five great structures whose total cost will involve huge expenditures. We will not attempt to say how much on the basis of estimates. When the Congress was first asked to make the initial appropriation for McNary Dam the estimated cost was $49,000,000. When McNary Dam is completed you will have spent almost $300,000,000 on the project.

THE NAVIGATION FACTOR

Waterway navigation has been a mode of transportation on the Columbia River for many years. For many years it was the principal method of transportation between Astoria at the mouth of the river and Portland, Oreg., a distance of about 100 miles. Today, although a navigable channel sufficient to pass oceangoing vessels exists, there is no line operating on a freight basis between these two points. When the Celilo Canal was built in 1915 it was hailed as the beginning of the existence of a great transportation system. Actually during the next 25 years the average tonnage passing through this canal was about 10,000 tons a year. It could all have been hauled in one 40-foot barge.

In 1940 tonnage increased as navigation interests were able to capture the business of transportation of petroleum products to the interior, and by 1947 traffic reached a total of some 900,000 tons. It is and has been, however, a peculiar traffic. In each year since 1947 over 98 percent of the traffic has been one-way traffic, that is, upstream, although the area between Portland, Oreg., and Pasco, Wash., traversed by the barge lines, taps a great grain-producing country. In addition, in each of these years the ratio of petroleum products carried to other normal traffic has been from 88 to 95 percent of the total.

Last fall the Standard Oil Co. of California completed a common user pipeline from Salt Lake City to Pasco, Wash. In 1950 traffic on the river barges dropped

to 848,148 tons from 912,582. There can be no argument that petroleum products can be moved into this area more cheaply by pipeline than by barge line.

What is going to happen to the tonnage of these lines? Some have seen the handwriting on the wall and are turning their efforts to ocean and coastal towing jobs. Are you going to build a vast navigation system that will have no business?

Are these inland waterways, under such circumstances, of real benefit to the public for the dollars put into them? The report of the President's Water Policy Commission recently published indicated this possibility on the ground that the consuming public would get the benefit of lower rates made possible because the barge lines would have publicly paid for right-of-way with no tolls to pay.

In 1948 with barge lines hauling practically all the petroleum products carried into this area we made a check of retail gasoline prices paid by the public in Spokane, Wash., as compared with the price paid in Portland, Oreg., where the barge hauls originated. Although the barge lines had taken over 90 percent of the business away from the rail lines by quoting lower rates, the Spokane consumer paid just 2.8 cents per gallon (41 cents per 100 pounds) more than the Portland consumer. That difference reflected exactly the rail rate on that product from Portland to Spokane. We ask what was the benefit to the public?

In conclusion we can add that exhaustive Government studies of Government subsidized river navigation projects do not indicate that real benefits have been attained.

We quote from House Document 159, Public Aids to Domestic Transportation, a report to the Seventy-ninth Congress from a board of investigation appointed under the Transportation Act of 1940, page 70.

"Savings to waterway users: Benefits from improved waterways have been commonly measured in terms of the transportation savings, which are or may be realized by those who use the waterways. Such estimated savings are calculated as the difference between what shippers would pay for transportation by some other means, usually by rail, and the charges, or operating costs borne by shippers who use the waterways which are improved and maintained at public expense. While the procedure is useful in appraising projects under existing waterways policies, it must nevertheless be stressed that the 'savings' referred to are not real economic savings such as would indicate the comparative economy of waterway transportation. They result largely, or wholly, from a shifting of transportation costs from the shippers to the taxpayers, who instead bear the hidden costs of navigation improvements and their maintenance."

THE POWER FACTOR

Ice Harbor does not have a large power potential. If and until Hells Canyon Dam is built, its highest rated capacity will be 195,000 kilowatts. It is not located near any large center of industrial use. It is near the Hanford atomic plant but so is McNary Dam which will be in production 2 years before Ice Harbor. It is presently estimated that Ice Harbor, if constructed, will have a potential of 130,000 kilowatts by 1956. By that time McNary Dam, according to schedule, would be producing 560,000 kilowatts which would afford an adequate reserve for Hanford. It would be far less costly to build a separate line from McNary to Hanford than to build Ice Harbor Dam merely to provide Hanford with a power supply apart from that of the general lines of the Northwest power pool.

By 1957 power production at Ice Harbor is expected to be up to 195,000 kilowatts according to current estimates. This output may be slightly increased when and if Hells Canyon Dam is completed. Compare this small production with that of McNary Dam which when completed will produce 980,000 kilowatts, Chief Joseph Dam which will produce 1,152,000 kilowatts, and Hungry Horse which will produce directly and indirectly some 400,000 kilowatts.

To summarize the entire picture, we will point out that the available power supply in the Pacific Northwest today from both public and private facilities exceeds 4,000,000 kilowatts. The Federal program covers some 30 additional dams beyond those already completed. Nine are under construction. Fifteen have been authorized for construction. Six have been recommended for authorization. We wish to point out that of these 30 dams only 8 are so located as to interfere with the fishery resource.

The four lower Snake dams, including Ice Harbor, which are the only ones on the Snake River presently authorized by Congress will produce, when completed, a total of approximately 700,000 kilowatts. On the other hand, Federal projects under construction, authorized projects not objected to by the fishery and recom-

mended projects in the same category, would produce 3,921,600 kilowatts. When you add to this figure the 500,000 kilowatts now under development by private companies, the figures will indicate that the power potential of the area may be doubled without building any of the structures protested by the fishery.

Much is being said about the necessity for speed in obtaining production of power in this area because of defense needs. We present herewith a list of projects, Federal and private, all of which can be brought into initial production by 1954 or 2 years before Ice Harbor Dam. We list these projects with their locations, power potentials, and estimated initial production dates. Some of these duplicate dams already mentioned; this list being classified as to production dates. None of these dams are objected to by the fishery.

Project	Location	Stream	Ultimate installed capacity, 1,000 kilowatts	Date of initial operation
Chief Joseph	Washington	Columbia	1,152	December 1954.
Albeni Falls	do	Pend Oreille	43	January 1954.
McNary	Washington-Oregon	Columbia	980	December 1953.
Cabinet Gorge	Idaho	Clark Fork	100	January 1954.
Lookout Point (Meridian)	Oregon	North Fork of Willamette.	115	July 1954.
Dexter	do	do	15	Do.
Palisades	Idaho	Snake	112.5	April 1954.
Upper Scrivner	do	Scrivner Creek	30	December 1953.
Lower Scrivner	do	do	90	Do.
Garden Valley	do	South Fork of Payette.	60	September 1954.
Lucky Peak	do	Boise	20	June 1953.
American Falls	do	Snake	30	May 1953.
Rock Island	Washington	Columbia	200	September 1952.
C. J. Strike (Hopkins Ferry)	Idaho	Snake	82	Do.
Dike	do	do	50	Do.
Guffy	do	do	30	July 1952.
Kerr	Montana	Flathead	168	October 1953.
Thompson Falls	do	Clark Fork	75	Do.
Sultan	Washington	Sultan	110	September 1953.
Box Canyon	Idaho	Pend Oreille	60	
Hills Creek	Oregon	North Fork of Willamette.	20	July 1954.
Warm Springs	California	Klamath	30	September 1952.
Iron Gate	do	do	9	Do.
Big Bend	Oregon	do	50	September 1953.
Boundary	Washington	Pend Oreille	276	December 1953.

The power potential of these structures is approximately 3,927,000 kilowatts, almost equal to the present production of the entire area.

Compared with these possibilities in total or in date of initial production, we can see little justification for the initiation at this time of construction of Ice Harbor Dam and its associate structures, which threaten the loss of two-thirds of the Columbia River salmon resource. The ratio of benefits to cost of Ice Harbor Dam has been changed so rapidly that we do not dare quote it with any assurance. Three years ago the ratio of annual benefits to cost was .81 to 1. Today as pressure from special interests to build this dam has increased, the ratio has changed to favor benefits. We urge your study of present figures available to you and not to us, and ask you to note if annual damages amounting to $9,000,000, the loss to the fishing industry if these Snake River dams are built, or any portion of this loss, has been included in reaching these figures.

FLOOD CONTROL

We contend that Ice Harbor Dam and its associated dams on the lower Snake River are not and are not claimed to be flood-control factors of any major importance in the basin-development program.

RECLAMATION

No large reclamation factors are involved in the construction of Ice Harbor and associated dams. Many thinking people in this area believe that the impact of the production from the still barely initiated million-acre Grand Coulee project should be studied in relation to its effect upon the agricultural economy of the area before further major projects are begun.

NATIONAL DEFENSE

We cannot believe nor have we been convinced by any evidence presented to date that the 195,000 kilowatts of electric power Ice Harbor Dam might produce by 1956 would have the slightest traceable effect upon our national defense program. According to the Federal Power Commission the capacity of power producing plants in the United States as of February 28, 1951, was 69,420,643 kilowatts. Ice Harbor in production would add less than two-tenths of 1 percent to this total. We cannot believe that any thinking person could consider as sound any statement that the lack of or addition of two-tenths of 1 percent of this Nation's present power potential could in any way have any material effect upon our national safety.

Balanced against the probable loss of some millions of pounds of fine protein food, Ice Harbor's value to national defense cannot stand scrutiny. More power closer to large user centers can be obtained far more quickly by spending all available Federal funds to insure the rapid completion of projects now under way. This time of drain upon the Federal Treasury for direct war efforts, of pressure upon the taxpayers to support a mounting load of public debt, is no time to divert Federal funds for starting on a project that can only be characterized as insignificant in relation to the all-over scope of our war effort.

Ice Harbor cannot come into production until 1956. If our defense situation is not resolved by that time, is it not reasonable to suppose that it will be because we are engaged in a struggle of such desperation and effort that neither the time, men, or materials could be devoted to the completion of a hydroelectric dam with a capacity of only 195,000 kilowatts.

We must contend that any claims that Ice Harbor Dam, with its small power potential and lack of any other claim to public benefit until four other dam structures are initiated and completed, is in any way vital or necessary to insure our national safety are sheer nonsense and must so be regarded by any thoughtful person aware of the facts.

THE ECONOMIC FACTOR

While the requested appropriation for Ice Harbor Dam is not large it must be considered as a pledge to spend hundreds of millions of dollars to complete this dam and the associated projects without which this structure itself cannot be regarded as an economically sound endeavor. The taxpayers of this country are already murmuring under heavy tax burdens. The thrust of taxes against the average income of the American citizen is becoming intolerable. It is becoming daily more evident that unless some relief is granted that the people of this Nation will be forced into a drastic change in the mode of living which they have been led to expect to be theirs. In view of these circumstances, it appears to us to be extremely unwise to initiate the construction of these lower Snake dams. If new projects must be initiated in this area, it would be far better to erect them on the main Columbia where the head of water would benefit the dams constructed below.

In this connection we suggest the Libby project which will store 4,620,000 acre-feet of water. This stored water proceeding down the Columbia will greatly increase production at Grand Coulee, Chief Joseph, McNary, and Bonneville. This dam alone and its stored water will add 1,133,000 kilowatts to the power supply of the area.

It should be understood that there does not exist a continuous power shortage in this area. Dr. Paul Raver, Administrator of the Bonneville Power Administration, declared in a recent talk at a conference called by Governor Langlie of Washington that this area had "interruptible power running out of its ears." In other words, there do exist in the Northwest at this time generators sufficient to more than adequately supply the area with necessary power. The trouble is with the water supply, and we believe that efforts should be concentrated on building dams in the upper reaches of the basin which will through large storage potentials be able to firm up the water supply and consequently the power supply.

POSITION OF THE FISHERY

We, who are interested in the preservation of the Columbia River salmon resource, and there are many thousands not directly connected with the industry who join with us in our thinking, do not contend that we can stand in the path of the reasonable development of this area or in the way of any project vital to our national safety.

We do contend that this great natural resource should be preserved as long as is reasonably possible.

Time may bring many changes. Any demand for the projects which would destroy the salmon runs may pass.

The runs may fail to pass up and down over McNary Dam which closed across the Columbia this past winter. If this should happen, this problem would be sadly solved. Perhaps experience gained at McNary Dam will lead us to the knowledge necessary to pass the salmon migrations safely over such structures. This was the thinking which led the conference committee of the Congress in 1950 to disapprove an initial appropriation for this structure. If it was sound then, is it not sound today in view of the facts?

Atomic power methods may be developed within a few years that will lead to the economical production of electric power by heat generated from fissionable materials. In such a case power could be brought to industry rather than industry having to follow power, making this vast network of costly dams unnecessary.

The Columbia River salmon resource is a virile resource. Left alone, given a chance to adapt itself to anything like its natural habitat it will return year after year, replenished by nature, as it has for past centuries. Destroy it and it is gone forever.

We ask you to protect this great gift of nature. It can be protected without any sacrifice of the reasonable development of the Pacific Northwest area and without in any way endangering our national safety.

We respectfully urge that you do not initiate its decimation by approving at this time an appropriation for the construction of Ice Harbor Dam.

Chairman McKellar. What we are trying to do is finish this hearing this morning, if we can. It is now nearly 10 minutes after 1. So I hope you gentlemen will keep that in mind.

Senator Cain. We will all press right along, sir.

With your permission I would like to go into the presentation of the distinguished Congressman from Idaho, Mr. Wood.

STATEMENT OF HON. JOHN TRAVERS WOOD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

COLUMBIA RIVER BASIN PROJECTS

Representative Wood. Mr. Chairman, I have a written statement here. Would it be all right if I saved time and introduced it?

Senator Cain. It would be helpful, sir.

Chairman McKellar. We will put it in the record.

Representative Wood. It will save your time as well.

(The statement referred to is as follows:)

STATEMENT OF HON. JOHN T. WOOD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

Mr. Chairman, I am appearing in behalf of appropriations for Albeni Falls Dam on the Pend Oreille River in North Idaho, the Ice Harbor Dam and locks on the Snake River below Lewiston, Idaho, and the McNary Dam on the Columbia River, a short distance below Ice Harbor damsite. All three are a part of the well-coordinated plan for the orderly development of the Columbia River and its tributaries, and supplement each other.

It has been repeatedly stated by the Defense Production Administration, the Department of the Interior, and the Bonneville Power Administration that there is an acute shortage of power in the Pacific Northwest to serve defense production plants, particularly aluminum plants.

If these statements are true—and I find no reason to doubt them—and if time is an element in preparedness, then there can be no legitimate argument against appropriations to complete these three projects as quickly as possible.

Albeni Falls Dam stands out as the No. 1 self-liquidating project in the entire Northwest with a benefit-to-cost ratio of 2.65 to 1. The total cost is only $31,070,000. Allotments to date are $2,900,000, and the budget item approved for

fiscal year 1952 is $10,000,000 to continue the work now under construction. If permitted to continue under present schedule, it will make available by August 1952, 150,000 kilowatts of power at Grand Coulee and other downstream plants, in addition to 42,600 kilowatts developed at the damsite. This project is only 50 miles from the great aluminum plants at Spokane, Wash., which are sorely in need of this additional power. I believe it is imperative that the item of $10,000,000 be restored.

McNary Dam is approximately 50 percent completed. The total estimated cost is (lock and dam) $270,000,000; and allotments to date total $112,185,000. The budget request for 1952 is $42,900,000. The House cut this by $6,900,000; and I am advised that this cut will delay completion by 1 year and add substantially to the cost. For that reason, I feel the $6,900,000 should be restored.

Ice Harbor Lock and Dam: Report 308 of United States Army engineers shows this to be a multipurpose project for navigation, irrigation, and power. The benefit-to-cost ratio is 1.30 to 1. I am advised that power from this dam is sorely needed by the atomic energy plant at Hanford, Wash., which is only 50 miles from this project; and that if it is not completed in time, $7,000,000 will have to be expended in transmission lines which will be largely useless when this project is eventually constructed. While the power and irrigation features of this project are of great importance, I feel its greatest contribution to the national welfare will result from its aid to navigation, supplying water transportation from Lewiston, Idaho, to the Pacific Ocean—a distance of approximately 1,000 miles. Water transportation on the Columbia and Snake Rivers is not new; it has been carried on for more than 100 years, and more than 90 percent of this waterway is now complete; and the construction of this lock and dam is fully justified from a navigation standpoint alone.

Aid to navigation has always been a function of the Federal Government; and the construction of Ice Harbor lock and dam is fully justified from a navigation standpoint alone—not merely of benefit to Lewiston and the immediate surrounding area but to all of the people of the entire United States because it will open to development the greatest undeveloped mineral area in the United States and the finest stand of white and yellow pine timber in the world. Most of this timber is owned by the Federal Government and is ripe and ready to cut. You all know that ripe timber deteriorates rapidly; and profits accruing to the United States because of increased price of this timber will go far to defray the cost of this project.

The area is rich in all minerals—gold, silver, lead, zinc, copper, tungsten, antimony, and other strategic metals, many of which we are now importing from foreign lands at terrific cost and expense, as well as lime, phosphate, and materials for making cement—all of which will be needed in developing the 1¼ million acres of land now going under irrigation in the nearby Columbia Basin project. These supplies can reach this area by inexpensive water transportation and thereby materially cut Government costs in developing. Transportation rates for farmers will also be materially reduced.

Fully 98 percent of the people in the Northwest favor this project. The one dissenting note comes from those who pretend to represent the fishing industry. Now let us examine their protests: First they say the lower Snake River between Lewiston and the confluence with the Columbia River is the principal spawning grounds of the Chinook salmon. That is absolutely untrue. I have lived in north Idaho more than 40 years, tramped its forests and fished its streams, and I know, and everyone else knows who is familiar with the situation, that 95 percent of the salmon entering the Snake River spawn in the upper tributaries of the Snake—in the Salmon and Clearwater Rivers.

Then they tell you that salmon cannot get over Ice Harbor Dam. Salmon, on the way to their spawning grounds have successfully gone up fish ladders at Bonneville Dam and similar ladders will be furnished at Ice Harbor, in addition to open locks through which they can pass. But, they tell you, Ice Harbor Dam is higher than Bonneville Dam. True. But there is only 10 feet difference in the height of McNary Dam and Ice Harbor Dam. As already stated, McNary Dam is 50 percent completed and construction is proceeding rapidly. It stands to reason that if fish can get over McNary Dam, they can get over Ice Harbor Dam. If they can't get over McNary Dam, they would never reach Ice Harbor Dam, so there can be no argument on that score.

Personally, I believe fish can successfully scale both McNary Dam and Ice Harbor Dam and that industrial pollution in the lower Columbia River is more responsible for the gradual reduction in the salmon run than any dam on the Columbia River and its tributaries.

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From the standpoint of national defense, good business, and economy, I most earnestly request that this committee restore the appropriations for these three most essential, self-liquidating projects.

Mr. Chairman and gentlemen of this committee, I want to thank you for the courtesy and privilege of appearing before you.

ALBENI FALLS PROJECT, WASHINGTON-IDAHO

Chairman McKellar. If you have a statement to make, or wish to give the high lights, we shall be glad to hear from you right now.

Representative Wood. Particularly I would be interested in the Albeni Falls and Ice Harbor projects just as much as in the McNary Dam project.

The Albeni Falls project happens to be in my district. It is designed to be producing power by the summer of 1952 and for a comparatively small expenditure of money.

TOTAL COST AND OBLIGATED FUNDS

The total cost of Albeni Falls on the Pend d'Oreille River is $31,070,000. Allotments to date are $2,900,000.

1952 BUDGET ESTIMATE

The budget item approved for fiscal year 1952 is $10,000,000 to continue the work now under construction.

If permitted to continue under present schedule, it will make available by August 1952, 150,000 kilowatts of power at Grand Coulee and other downstream plants, in addition to 42,600 kilowatts developed at the dam site.

RESTORATION REQUESTED

This project is only 50 miles from the great aluminum plants at Spokane, Wash., which are sorely in need of this additional power. I believe it is imperative that the item of $10,000,000 be restored to the appropriations.

Chairman McKellar. Thank you very much.

All right, Mr. Erdahl.

Mr. Erdahl. I might just comment on that and then I will go on very rapidly.

I appreciate all the time you have given us.

What has just been said by Senator Cain is subscribed to but if the Secretary of the Interior has written a letter just spoken of right now, it presents a very, very serious problem, that I think does concern this committee, because, if there have been any inconsistencies that would surely carry. It does affect these appropriations, because we are dealing with one and the same item. We are dealing with opposition of that very important fishery resource in the Pacific Northwest that we in Tacoma have been trying to solve.

FISH INDUSTRY CONTROVERSY

If we are going to have development of power in the Northwest, we must solve the problem of fisheries against high-head dams. We have been trying to do that. However, for the Federal Government to take the position of asking this committee for appropriations for

projects such as The Dalles and Ice Harbor and other dams that have a fish controversy while at the same time opposing non-Federal projects with the same controversial issue, it seems to me to be the most inconsistent thing for anybody to do.

I think the committee should see to it that the Defense Electric Power Administration determine once and for all if they know whereof they speak when they say power is necessary and then write a letter to this group or committee on the Hill, and that it is important to defense that all projects, Federal and non-Federal, be built for our area—and any other area.

The Dalles particularly that I hope is built, and built as rapidly as possible, and Ice Harbor, too, is in the same sanctuary position as the Cowlitz project. It is the same argument that they used on the Cowlitz project, that it is in the sanctuary. The same category holds with The Dalles project, because it is below McNary, but, because of national defense, the Federal agencies have decided to pull The Dalles project out for national defense, but at the same time oppose non-Federal projects that are in the same category.

I think if we do not do anything else while we are back here before the group, perhaps we should get a clarification and find out is power for defense important or is only Federal power for defense important? If we could have a clarification, we, I think, in the non-Federal category could do a much better job of cooperating with all the Federal agencies in seeing that the job is done.

We have no quarrel with the fishery people who are honest and sincere about an attempt to solve the fish problem. We are just as serious and sincere about doing that. We think that appropriations have not been sufficient to bring research on fish along with development on hydro projects. We urge that that be done as rapidly as possible.

Chairman McKellar. The theory, of course, is that a fish cannot get up the river to spawn.

Senator Magnuson. They can get up, but they say they cannot come down.

Senator Cain. Mr. Chairman, those of us who have been concerned about this problem for a long time only wish to get the Fish and Wildlife people and the power people together to prove in this tremendous twentieth century of ours that it is not impossible to reconcile the rights of fish and power. Those of us who are lay persons are convinced there must be an engineering answer to that problem, and to have applications pending for 2 or 3 years which, if approved, would provide hundreds of thousands of kilowatts of power, seems just an insult to the intelligence of the age in which we live. That is all we are driving at.

I do agree with the witness that it is important to this committee because, if this problem of fish is not solved, then more and more Federal dollars, which are getting harder and harder to obtain, are going to be required to do our collective job out in the Northwest.

Senator Magnuson. No one questions that. Here we have a letter on June 22 from the Defense Electric Power Administration which points out all these projects.

Chairman McKellar. What do they say about it, generally?

Senator Magnuson. We have the same situation on Ice Harbor.

Senator CAIN. The Defense Electric Power Administration has strongly recommended that Pelton and Cowlitz be permitted to go ahead, but my understanding is that the Secretary of the Interior, for whom Mr. McManus of the Defense Electric Power Administration is an agent, has countermanded that.

Senator MAGNUSON. Let us find that out before we argue about it.

Senator CAIN. I am raising the question. Let us find it out.

STATEMENT OF KEN G. WHITAKER, DEPUTY ADMINISTRATOR, DEFENSE ELECTRIC POWER ADMINISTRATION

FISH INDUSTRY CONTROVERSY ON CONSTRUCTION OF DAMS

Mr. WHITAKER. My name is Ken G. Whitaker. I am Deputy Administrator of the Defense Electric Power Administration.

I think I can help Senator Cain a little bit.

I cannot give him a complete answer, but I can help him some about this apparent contradiction.

The letter written by Mr. McManus to the Interior Subcommittee was written with Secretary Chapman's full knowledge and consent.

Now, the apparent contradiction comes about from this: The Department of the Interior, which of course we know is the head, has been convinced that in the over-all picture there would be greater damage to the fish industry than there would be benefit in the power field. But Secretary Chapman thought, in fairness, that the views of the power people should be made available to the Federal Power Commission, so that they could be considered in this instance.

Now, why he wrote the letter, I do not know. I would guess, if I may surmise, that he was asked by the Federal Power Commission if there was any change of policy on the part of the Department of the Interior.

Senator CAIN. You might think me disrespectful, but could you explain to me what you have just said, that the Secretary of the Interior completely approved Mr. McManus writing to the Appropriations Committee and a few days later he writes another letter in his own name that completely repudiates what he had approved?

Mr. WHITAKER. If I may, I would like to respectfully disagree.

Senator MAGNUSON. Mr. Whitaker, you are speaking about two dams, are you not?

Mr. WHITAKER. That is right, Pelton and Cowlitz Dams.

Senator Cain, Secretary Chapman's position was that the views of the power industry had a right to be made available to the Federal Power Commission; therefore, he let the letter that was signed by Mr. McManus go to Mr. Wallgren, the Chairman of that Commission.

Now, the question was raised as to whether or not that meant a change of position of the whole Department of the Interior. His subsequent letter said that it did not. But he wanted the Federal Power Commission to have the views of this Defense Electric Power Administration.

Senator CAIN. You are with the Defense Electric Power Administration?

Mr. WHITAKER. That is right.

Senator CAIN. And you are seemingly very familiar with the letter which the Secretary of the Interior wrote to the Chairman of the Federal Power Commission?

Mr. WHITAKER. No, sir; I said I had not discussed that with the Secretary, but that I assumed from conversations that I had heard floating around that the question was raised and therefore the letter was sent.

Senator CAIN. We will look into your assumption, sir.

Mr. WHITAKER. Thank you, sir.

Chairman MCKELLAR. All right, Mr. Erdahl.

Mr. ERDAHL. I just want to repeat again I do not believe you can divorce the two, the non-Federal and the Federal projects, for the reason that it is a controversial issue. In other words, the fish problem must be solved.

Senator Magnuson mentioned they are not opposed to some projects. However, if the projects of the non-Federal and the Federal projects that are opposed by the fishery interests are not solved, so that they can go along with a cooperative program we will have a power shortage in the Northwest for the rest of our natural lives, at least Senator Magnuson and I, who are 39, or a little older than that. But the problem must be solved, and it must be solved as far as the non-Federal and Federal projects are concerned, because the Snake River project, The Dalles project, and the John Day and Priest Rapids all are opposed by the fishery interests in varying degrees. If we have those opposed by the fishery interests, we will have a power shortage for the rest of our lives, regardless of the upstream dams that will be built.

Those dams are important dams, the Ice Harbor and Snake River dams are important, The Dalles is important, Priest Rapids is important.

We cannot live on just upstream storage; we need downstream dams, as I am sure Senator Magnuson will agree.

Senator MAGNUSON. I do not disagree with you. You should not put that interpretation on it. I am trying to stick to what we have before us now, because this committee is a busy committee and I would like to get this done and we will then go at that other thing.

Mr. ERDAHL. To prevent the power situation from deteriorating to any greater extent, projects now under construction such as Albeni Falls, McNary, and Chief Joseph, must be maintained on schedule.

Senator MAGNUSON. There, Mr. Chairman, he is talking about the Federal dams, defense power.

Mr. ERDAHL. I might say, as I said in the beginning, it would be terrible if at least that was not included in the Senate, so that those contractors could proceed as rapidly as possible with the building of those projects.

In order to restore capacity in the Pacific Northwest to an amount which will be sufficient to meet capacity requirements subsequent to the 1953–54 period, appropriations for new projects not yet authorized must be obta ned and it will be necessary to continue the new starts in the future, in order to maintain a satisfactory power situation in the Pacific Northwest after a reasonable balance between load and capacity is once obtained.

In the opinion of Defense Electric Power Administration, the Federal projects most necessary for an early start are The Dalles, the Palisades, Ice Harbor, and some additional storage on the upper reaches or tributaries of the Columbia River.

HOUSE ACTION TO WITHHOLD FUNDS UNTIL FISH CONTROVERSY RESOLVED

Senator CAIN. Is it not so that in the House hearings, it is pointed out that Ice Harbor should not be given further consideration at this time until the fish controversy is resolved?

Mr. ERDAHL. That is the way I understand it.

Senator CAIN. That is the one reason why the whole question of fish becomes important to us in talking about power.

Mr. ERDAHL. Yes.

Even though a satisfactory program can be authorized an adequate supply of power in the Pacific Northwest, this program can be completely upset if the Defense Power Administration continues to deny the electric power industry a satisfactory share of materials, as it did in the third quarter of 1951.

and that comes back to the material problem, and then I go on to indicate that permission was granted for the release of this letter both by Senator Hayden and the Federal Power Commission.

I am wondering if I cannot take this as the statement? I think I can hit the high lights. It will speed it along, and I think we will get to those questions, if there are any, by the Senators at the same time.

I go on in the next page to outline a few years ago the National Security Resources Board, the Army Corps of Engineers and all the Federal agencies of the Government concerned with national defense have been very much concerned, and have set up these projects as important to national defense, not just since the Korean situation, but dating back to 1947 and 1948, and have returned that report since. Arthur Hill returned that first report to the President, saying the projects were important to national defense in the Northwest and Cowlitz was the most important of all of them.

W. Stuart Symington, who followed Arthur Hill, made that same report a week after he took that office.

I go on and say that our operating committee has just recently made a report to our group of utility executive heads, outlining the problem that we are going to be faced with this coming winter.

AMOUNT OF KILOWATT SHORTAGE

Now, there is nothing that these new dams are going to correct, so far as this coming winter is concerned. All we can do is pray for water, and hope we can get it so we can meet the loads. But, if we have critical water this winter, we are going to be 600,000 kilowatts short of meeting the area requirements as they are at present.

Chairman MCKELLAR. What you mean by critical water is the lack of water?

Mr. ERDAHL. The lack of water; yes, sir. There are 600,000 kilowatts.

Now, it is true that there are 300,000 carried by Bonneville on an interruptible basis, and 300,000 on a firm power basis, but, from the standpoint of the effect on the area, whether it is peacetime or whether it is wartime economy, it is just as important that we keep all of the power going so that men can have their jobs.

Now, just to try to get our heads clear on what the effect of that 600,000 kilowatt reduction would have this next winter, it could vary

in lack of employment, or men off the jobs; from 5,000 to 15,000 men could be laid off, if we have this 600,000 kilowatt shortage that we are talking about, this next winter. It could vary by reason of the fact that we do not know; the Defense Electric Power Administration has the authority to say what industry is not going to be served if we have this shortage.

Is the aluminum going to come off or is it going to be chlorine plants, or is it going to be Fort Lewis, which is the Army camp, or McChord Field, or Bremerton Navy Yard? Who is going to come off?

That is a very, very important item with which to deal.

RESTORATION OF HOUSE CUTS ON WASHINGTON PROJECTS

If we do not have reinstatement of these cuts that the House made on Albeni Falls, on Chief Joseph, and on McNary Dam, together with the new starts of at least the Dalles and the Ice Harbor projects as a minimum, we are going to extend this critical situation this coming year for that many more years in the future.

If there is anything we can do to do a better job of convincing you that we should give the Army Corps of Engineers all the money that they ask, so that they can get the fastest job done, again Albeni Falls, McNary, and Chief Joseph projects, and give them the money necessary to get early starts on the Dalles project and the Ice Harbor project, why, this committee, representing all the utilities people, and having that utility responsibility, would feel as though you are doing the job that you have to do and the responsibility that we have a right to look to you for.

Senator CAIN. What percentage of your total would it be if you had curtailment of about 600,000 kilowatts in the next year?

Mr. ERDAHL. It would be about a 20 percent cut-back. That is, counting the interruptible and the firm power. For example, it is going to affect 5,000 to 15,000 men and their jobs; it is going to affect defense. We do not have that many industries out here that are not important to the national defense. It does not make any difference where you cut them, Senator, you would have to cut, in effect, the defense program as well as our peacetime economy.

For example, it would take all of the industry in the entire Puget Sound area off the line if we had to cut back to that extent. It is a serious problem.

Some mention was made earlier that we would like to bring new industries there. I think that is wonderful. We surely want to do that. As Mr. Smith said, we want new industries. But our immediate problem is: Won't you please help us serve the industries that we have there now? The defense and other industries, and do a better job of catching up so that we can be in that position of serving new industries, should they want to come to our area.

Senator CAIN. If the Northwest faces the possibility of a cut-back, why is it proposed that large aluminum plants be constructed in the Northwest?

Mr. ERDAHL. We discussed that at quite some length heretofore with our committee and with our group. We are concerned about that. We talked to Dr. Raver about that. I understand the latest expansion program of aluminum is by Reynolds. We have been advised that that is on an interruptible basis. If the power is short, they will go off the line.

However, from the standpoint of the defense agencies, we have never had any assurance that they would not insist that that interruptible load not be made firm. If it is made firm, you can add to the 600,000 kilowatts of shortage I am talking about by the amount that would be imposed upon the areas. We are hopeful that while we are back here we can have another discussion with the Defense people to point out that we are not opposed to industry, we are not opposed to anything that is good for national defense, and surely, for our area. We are only trying to point out to you gentlemen that it is a very serious problem and we have to solve this thing together with the full knowledge of everyone, that we have a critical problem.

The item that is before you gentlemen that you have to help us on, if there is any possible way, is to give the Corps of Engineers the money that is necessary to reinstate those cuts that the House made on those projects and to get them some new starts for these short-range projects, plus what comes along later in the upstream storage and the later programs, if we are going to have any solution of this problem, because of our rapid growth in that area.

MUNITIONS BOARD NOTED ON NORTHWEST POWER SHORTAGE

Senator MAGNUSON. I might add, Mr. Chairman, I have just been informed on the question of defense projects, that the Munitions Board is so worried about the power shortage in the Pacific Northwest that they have sent a task force out there to take a look at the matter. That adds another defense agency to those already mentioned.

Mr. ERDAHL. There is one paragraph I would like to read on the problem we will be confronted with in this shortage that we are facing, to give you some idea of the magnitude of it. It is very short. It is on page 10.

That first paragraph deals with the aluminum loads that we just talked about, and the cut-backs, but keep in mind that defensewise the Federal agencies may determine that must operate. Then our problem will become much more critical.

ACTION BY PRIVATE POWER IN ELIMINATING POWER SHORTAGE

We have a general understanding of how we operate, with the Bonneville Power Administrator, Dr. Raver, who is here. Under peacetime operations, that comes off when things become critical. I do not know who has the authority to say it is going to run in spite of anything else, and if that be the case, why then, of course, our situation is that much more critical.

We have had a very dry spring and summer so far in the Northwest. Storage reservoirs behind our power dams are not yet full. By mid-September we may well be headed into a record dry year with all that it implies in power cutbacks on all users and large-scale unemployment. The Power Pool Operating Committee draws the conclusion that if this happens, we face a 50–50 probability that fuel requirements for continuous steam-plant support would be not less than 350 tons of coal, 6,500,000 barrels of oil, and 227,000 units of hogged fuel. The hogged fuel would be waste from our lumber mills, but the coal would have to be imported by rail and the oil by tanker

from California and the Gulf. And nobody can say whether transportation will be available for that kind of hauling, plus the fact of the economic burden it is going to put on the area, on higher costs to our people, when we have that potential hydro there. Once it is started, the quicker the Federal Government gets those projects completed, the quicker you begin to get the results of the earnings of those projects, and actually make money. This is the one thing that the Federal Government does that is good business—and we find it is good business. We make these big investments, as has been outlined, the non-Federal agencies are willing to spend $350,000,000 to $400,000,000 to do that, and can get that on a revenue bond basis. If we can do it that way, I am sure it is a good investment for the Federal Government, and I am sure all you gentlemen agree with that point.

Under median, or relatively average water conditions, things will be bad enough. Only if we have excessive rain and snowfall as we had last winter could we expect to be able to carry our around-the-clock energy loads. Then we would have as our major problem the meeting of our midwinter peak loads. Plans for meeting all these conditions are being studied well in advance, so that we may obtain from industry and from the public generally the maximum of cooperation in adjusting loads to resources.

Then on page 12, because the meat of the coconut is there, but I would like to repeat everything we are here to talk about is contained in the middle of the next page.

This year sees the eighteenth and final generator of the Grand Coulee plant put on the line, but there must be upstream storage reserves at Albeni Falls and Hungry Horse very soon if those last Coulee generators are to be of more than casual value. Maintenance of these appropriations at full strength only meets the short range problem. To meet the longer range situation, Ice Harbor and The Dalles projects, or their equivalent in hyrdo generation, must be activated and at least a start made on additional upstream storage—one major project in this category as a minimum.

In other words, we have decided, because of the House action, in coming before this group here, that we think it is improper for us to come back and ask for anything beyond the minimum. What we are talking to you about, gentlemen, is the minimum we are going to have to have, if we are going to avert the disasterous situation for years to come if these items are not reinstated in the budget and new starts are not provided, so that we can get out of this shortage as quickly as possible.

Now, I have been speaking for the group, the public agencies and the private agencies. I have called on some of them. There are some I have not called upon. What I would like to do is rapidly go down and ask them if they have anything further to comment on, or if they have anything to put in the record, and if they do subscribe to our position generally, that we are 100 percent in support of our request to you gentlemen that you must help us get these appropriations reinstated and get these projects started, The Dalles and Ice Harbor, at least. That is the minimum.

Before I go on to the other group, are there any of the fellows who have already been called on who have anything additional to add to the discussion we have had up to this point?

If not, I would like to call first on F. Ford Northrop, president of the Northwest Public Power Association, who is here today. I think he has a statement. He may have something to add besides that.

STATEMENT OF F. FORD NORTHROP, PRESIDENT NORTHWEST POWER ASSOCIATION, EUGENE, OREG.

COLUMBIA RIVER BASIN

Mr. NORTHROP. Mr. Chairman, I do not want to take a great deal of your time. I have a statement to present.

Chairman MCKELLAR. Without objection, that will be placed in the record.

(The statement referred to is as follows:)

STATEMENT OF F. FORD NORTHROP, PRESIDENT, NORTHWEST PUBLIC POWER ASSOCIATION, EUGENE, OREG.

The Pacific Northwest is having a tremendous economic development from which the whole United States benefits. The many contributing factors include the manufacturing of wood products, a well-diversified agriculture, the fabrication of metals into many useful products, and a pleasant and stimulating climate. This growth has overtaxed the capacity of our electric power plants.

Every part of the United States, in order to progress, must have sufficient supplies of electrical energy. That portion of the Pacific Northwest which lies west of the Continental Divide is handicapped for lack of plentiful supplies of gas, coal, and oil. With the greater utilization of trees cut for lumber, wood waste as a power-plant fuel is becoming very scarce. Hydroelectric power must be the prime source of energy and the economy of the region is closely associated with its development. Needless to say, the potential power in the rivers is of no value without powerhouses, dams, transmission lines, and substations.

Because the larger and most needed plants are located on State boundaries, or involve navigation and flood-control benefits, it is evident that the Federal Government must build them. Though all the United States profits from these plants, we of the Northwest are now paying, and will continue to pay, willingly, for them by returning to the United States Treasury all moneys expended, with interest.

What we now ask of you gentlemen of this committee, is that you keep the Congress informed of our needs and request appropriations to be made at such times and in such amounts are required.

Operators of electrical systems know that electrical equipment and machinery have capacity ratings which allow operation at full load continuously but will not allow overloading for an appreciable length of time without damage or destruction because of overheating.

To make the most effective use of all plants in this region, the privately owned and publicly owned utilities, including the Bonneville Power Administration, have integrated for operating purposes all major power plants and transmission lines into what is called the Northwest Power Pool.

The operators of the Power Pool have painstakingly compared the total power resources with the forecasted total customer loads and have found that the resources will not be sufficient during any of the next 4 years unless there should be an exceptionally good water supply in the rivers and storage reservoirs. In the event of a critical or low-water year, in which the river flows will be low, and the storage reservoirs are drained, the Northwest will face a catastrophe to its economy that may be likened to the effects of a major drought in the midwestern or eastern parts of the United States. Use of energy will have to be rationed, and even then much damage may be done to both utility and customer equipment and the convenience and safety of the general public will be jeopardized. Even in an average water year the loads will be greater than the power resources at the time of the winter peak loads. During each of the past 3 years there have been days when electric clocks ran slow because the speed of generators could not be held up to normal, but prospects for the next few years are much worse.

It is too late to do anything to completely alleviate the serious conditions which may occur in the next 4 years. Plants now under construction will not have been

completed. All we can now do is to pray for average, or better than average, water conditions. Also we must encourage construction of the smaller non-Federal projects, some of the most important of which can be built within the next 3 years with the support of Federal officials.

At this time we should look forward to the start of construction of new plants to relieve the anxieties and dangers of an inadequate power supply. A slight excess, which would provide for emergencies and unforeseen demands, would be the healthy condition which utility operators would like to see maintained.

The normal load growth of the Northwest requires new generating capacity each year amounting to more than the capacity of the Bonneville Dam, or nearly the capacity of a McNary Dam.

Therefore, we urge the Congress to loan money to the Northwest through proper appropriations for the purpose of hurrying along the projects now underway and to provide for starts on additional power projects which fall in the field of Federal construction and operation.

I will not go into details as to the exact amounts of money that should be appropriated and just where they should be spent. You already have a mass of data on these subjects. If we Northwest utility operating men can be of help in arriving at decisions, we will be glad to work with you.

We trust that you will see to it that there will not be a breakdown of electrical services from failure to provide for early completion of present plants and starts on new ones which will fully provide for the predicted load growth.

Thank you.

NORTHWEST POWER SHORTAGE

Mr. NORTHROP. The substance of it is about this minimum requirement that we need.

I counted 15 men here who are actually operating utilities in the Northwest. I see they all bear very, very anxious expressions.

Senator STENNIS. Mr. Chairman, will the gentleman explain what the Northwest Public Power Association is?

Mr. NORTHROP. The Northwest Public Power Association is an association of public utilities in the four Northwestern States and the Territory of Alaska. We have no members in Alaska, so we really think of it as being in the four Northwest States.

Going back to this load growth, the historical rate of electric loads in the United States since 1916 has been about 7 percent per year compounded. That means that doubles every 10 years.

Now, in the Pacific Northwest, the growth has been much more rapid than that because of an accelerated growth in population and a greater use per capita because we do not have oil, and coal, and electricity is our principal source of energy.

In our Northwest Public Power Association we have municipals, public utility districts, and a great many rural electric cooperatives. We find that those growths have been about the same whether they have industrial loads or not, so-called big industrial loads.

Take my own city of Eugene, Oreg.; our load doubled in 3 years' time. Our annual load increase has been about 13 percent. That is characteristic of the whole Northwest.

Now, 3 years ago power was so short that there had to be some rationing. Also, we have to carry on a campaign of curtailment as much as the people would cooperate.

In the last 2 years clocks have run slow in winter because we could not keep the generators quite up to speed.

The forecasts for the next few years though appears to be very much worse. As a utility operator I, along with these others, am very much concerned with what is going to take place. We have had better than average water conditions for the last 5 years, so we have

managed to get by without too much curtailment. Now, if we should run into a minimum water year, a critical water year, in the next 3 to 5 years, we think it would be nothing short of a catastrophe. It might be compared with a major drought in your Midwestern and Eastern States. It is that sort of thing that has brought us here to plead that you do what you can to help alleviate these conditions.

Chairman McKellar. Science has not yet found any way to make it rain.

Mr. Northrop. No; that is right. So there is nothing you can do for the next few years. If we do not get the rain, then we will have to go through curtailment, which will be a very serious problem.

STEAM PLANTS

Chairman McKellar. You do not have enough steam plants to make firm power?

Mr. Northrop. We have some steam plants in the Northwest, but the prime power must be hydro because we do not have the coal and the oil with which to run the steam plants. We have had a good deal of wood waste, but that is becoming very scarce. They are utilizing the logs much better than they used to, and much of what used to be waste is going into hard board and paper and other uses.

Mr. Erdahl. At that point, Mr. Northrop, I think you should state, however, that 600,000 kilowatts of shortage that we are talking about is with full operation of those steam plants to the maximum ability of them to operate.

Mr. Northrop. That is right. That is, with all the resources on the line, we still will be a little short in a median water year and in a critical water year, we will be very short.

Now, we do want you to consider our needs for some years to come. We want these plants completed, these that are started. We just have to have them. Then we want you to make some starts on some new plants, so that we can take care of this growth as it comes along. We have to have the plants—I do not see how they can be put off.

Now, these big plants that are needed are on the State boundaries, or else they have flood-control benefits or navigation is involved, or they take a great many years for them to be built, so we feel there is a place for the Federal Government to take part in this program of giving us enough power. We are not asking you for any gifts. All we are asking is that you loan us the money and we will repay it and we will do it with interest, very willingly.

Thank you.

Mr. Erdahl. Mr. R. G. Plymire, of Puget Sound Power & Light Co. may have some comments to make.

Northwest Power Shortage

STATEMENT OF R. G. PLYMIRE, ASSISTANT TO THE EXECUTIVE VICE PRESIDENT, PUGET SOUND POWER & LIGHT CO., SEATTLE, WASH.

Mr. Plymire. I have nothing to add except to say we join wholeheartedly in the idea of restoring these appropriations to meet a very pressing and serious power situation, which has been with us for a number of years.

Mr. ERDAHL. The next one is John Dickson, manager of the Wahkiakum County public utility district.

STATEMENT OF JOHN S. DICKSON, MANAGER WAHKIAKUM COUNTY PUBLIC UTILITY DISTRICT

Mr. DICKSON. I do not have much to say, except that we agree 100 percent with Mr. Erdahl's statement, and along with the private power companies, support this statement and urge that your committee not let the Northwest down in this critical period.

Mr. ERDAHL. We have Mr. P. C. Spowart, superintendent of the Seattle Light Co.

STATEMENT OF P. C. SPOWART, SUPERINTENDENT, SEATTLE LIGHT CO., SEATTLE, WASH.

Mr. SPOWART. The seriousness of the curtailment comes about from the shortage of water, and we expect to get it this winter and the following winter. Now, Seattle Light has always been progressive and we have never turned anybody away, but I can tell you gentlemen there are five defense industries in Seattle that we have signed contracts with on a temporary basis only. Now, that is industry we now have. They are steel mills, they are flying-machine plants. New plants that come along that do not make a contribution to the defense we have no interest in at the present time. We have curtailed for the last 2 years anyone who wishes to heat their home with electricity because we believe that that should be put into institutions that will create payrolls.

Thank you.

Chairman MCKELLAR. Is there anything further?

Mr. ERDAHL. Are there any comments from any of the other fellows on that?

Can I say, for the benefit of the committee, that we do all subscribe, public and private agencies, to the statements made in support of these Federal appropriations, that they be reinstated, and we have a minimum of two new starts, The Dalles and Ice Harbor, so we can get out of the woods as quickly as possible?

Then, because we have two gentlemen here who are not members of our particular committee, I would suggest that they be called on for their comments, because they are from the Northwest and are interested in the same thing, namely Mr. West and Mr. Baker.

Senator MAGNUSON. Before Mr. West gives his testimony, I do think that probably the most important man who could testify overall to this problem would be Dr. Raver, who is here. He is the head of Bonneville Power Administration.

Chairman MCKELLAR. Dr. Raver.

STATEMENT OF DR. PAUL J. RAVER, ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION

Dr. RAVER. Mr. Chairman, all I need to say to you gentlemen is that these men who have testified are our customers. Our job in the Federal system is to try to take care of our customers. You have heard from them directly, instead of from the Federal representatives,

and I cannot imagine a better presentation than the one that has been given here on this over-all problem.

Chairman McKellar. Who is the next one?

Senator Cain. Mr. Charles Baker and Mr. Herbert West are respectively the president and executive vice president of the Inland Empire Waterways Association and I take it Mr. West wishes to be heard and will speak for Mr. Baker likewise.

STATEMENT OF HERBERT G. WEST, EXECUTIVE VICE PRESIDENT, INLAND EMPIRE WATERWAYS ASSOCIATION

Mr. West. Mr. Chairman, I do not know how you take it day in and day out. You have been very patient and very courteous in listening to this testimony. I want to make my remarks very brief and file my statement.

Chairman McKellar. Without objection, the statement will be put in the record.

Mr. West. Thank you, sir.

(The statement referred to is as follows:)

Statement of Herbert G. West, Executive Vice President, Inland Empire Waterways Association

My name is Herbert G. West, executive vice president of the Inland Empire Waterways Association, the main offices and headquarters of which are located in Walla Walla, Wash. Ours is an organization composed of farmers, farm cooperatives, businessmen, chambers of commerce, labor organizations, port districts, county and city governments, embracing a membership of approximaetly 60,000 representatives of all the territory in eastern Oregon, eastern Washington, and Northern Idaho, contiguous to the Columbia and Snake Rivers.

I appear before you today, not as an expert on national defense, but rather as a citizen of the Pacific Northwest who has been intimately associated and connected with our development program on the Columbia and Snake Rivers since 1934. It has been my privilege to have appeared before the Senate Appropriations Committee and the House Appropriations Committee almost yearly for the past 17 or 18 years, attempting to bring before you factual information regarding our projects and our program in order that you might make an intelligent appraisal of our needs from the national viewpoint.

The citizens of the Pacific Northwest are conscious of the great contribution made by hydroelectric power of our area to our national defense production record in World War II. Our people have great confidence in Mr. Charles E. Wilson, chairman of the Defense Mobilization Board; Mr. Clifford B. McManus, Administrator, Defense Power Administration; Mr. W. Stuart Symington, former Chairman of the National Security Resources Board; and many other governmental administrators connected with the National Defense Mobilization Board. This group, last fall, upon very careful analysis, determined that this Nation faced a national power shortage in our national defense mobilization effort. As we all know, this had to be considered in what I shall call phase 1, phase 2, and phase 3—immediate, in the near future, and long range.

Upon the analysis and subsequent representation of the Defense Mobilization Board, the President and the Bureau of the Budget submitted, for the consideration of the Congress, certain power projects to be developed by the Federal Goverment throughout the Nation which would tend to relieve this situation.

Certain projects and certain power responsibilities were assigned to the Columbia River Basin as follows:

Phase No. 1. The speed-up of Chief Joseph Dam, Hungry Horse Dam, McNary Dam, and Albeni Falls Dam.

Phase No. 2. Two new starts were recommended—Ice Harbor lock and dam and The Dalles lock and dam.

The citizens of the Pacific Northwest are acutely aware of the hydroelectric power potential of the Columbia River Basin. Our citizens have been led to believe that there is a national emergency, and that we are engaged in a national mobilization effort to build up the production potentialities of this Nation to meet

any eventuality that a chaotic and troublesome international situation might develop.

Our citizens are intensely patriotic. We are prepared to—we are willing to make whatever sacrifices are necessary for our internal security and future prosperity.

We are not playing politics as usual; we are not in the frame of mind, nor are we appearing here to ask consideration of a peacetime program of development of the natural water resources of the Columbia River Basin.

We are hopeful that the Congress may approach our national defense problems in the same frame of mind. Either we have a national emergency and must prepare for any eventuality, or we do not have one. In the latter event, we will have a different course to pursue. However, if we are agreed that there is a national emergency and we must prepare for it, then we are prepared to offer some facts for your consideration. We hope these facts will enable you to better evaluate the situation in the Pacific Northwest and its potential contribution to our present national emergency program and to the future internal prosperity of our country.

Because the House of Representatives has already acted on the Army civil functions bill, it seems appropriate that we discuss the individual projects presented for the consideration of Congress by the Bureau of the Budget.

The Federal program of water resource development for the Columbia River Basin is a coordinated, multiple-purpose program designed to conserve and utilize every acre-foot of storage of our water to the continued defense and prosperity of our Nation. I need not remind the members of this committee of the fact that a yardstick of economic justification, as to benefit-to-cost ratio, is assigned to each project. I do particularly ask your consideration of the fact, however, that this is a coordinated program, a multiple-purpose one, not an individual project program.

Therefore, some of the benefits that are assigned to individual projects do not obtain their full economic justification value until the entire program for the water resource conservation and development of our river system is completed.

Nevertheless, there is not one single project in the comprehensive, coordinated program that is not economically justified according to the very strict yardstick applied by the Corps of Engineers and the Bureau of Reclamation as to benefit-to-cost ratio; although many of the projects take on added value when the full program is developed.

Let us look at each project individually.

Project No. 1. Chief Joseph

The total estimated cost is $206,000,000. Allotments to date have totaled $26,700,800, and the request for the fiscal year 1952 is $17,392,000. The House allowed the full appropriation as requested by the Bureau of the Budget.

Project No. 2. McNary lock and dam

The total estimated cost is $270,000,000. Allotments to date total $112,185,000 The budget request for 1952 was $42,900,000. The House allowed $36,000,000, or a decrease of $6,900,000.

This is a most serious blow to this project and to our national defense program, for the work on McNary lock and dam is such that it must proceed together. Things must go along simultaneously. Therefore, the $6,900,000 cut is not just a cut in dollars and cents. It is a cut of 1 year in the time schedule for the completion of this project as estimated by the Corps of Engineers. It is a cut of 1 year from the time when power can be on the line—from December of 1953 (with the first units planned) to December of 1954. Most naturally, our people ask of the Congress the questions, "Do we have a national defense program?" "Do we have a national defense emergency?" Or, "are we talking of peacetime dollars and cents?" Our people are aware of the fact that McNary lock and dam is only representative of all of our projects in the Columbia River Basin.

We are returning to the Federal Treasury, with 3-percent interest paid, from 75 to 85 percent of every Federal dollar expended in our water resource development program in the Columbia River System. Most naturally, we are somewhat intolerant that the same groups of people are still fighting the Federal power development program in the Pacific Northwest in times of national emergency as they did in peacetime.

The Portland Oregonian, in a special article from Salem, Oreg., under date of April 22, 1946, stated the views of Senator Guy Gordon regarding the position of McNary Dam in an article headed, "Cordon jolts foes of dam with aerial plant

report". The article goes on, quoting the Senator as saying that groups opposing McNary Dam are listed as follows:

(1) Commercial fishing interests on the Columbia River.
(2) National Association of Electric Companies.
(3) John L. Lewis of the United Mine Workers.

Project No. 3. Albeni Falls Dam

The total estimated cost of this project is $31,070,000. Allotments to date are $2,900,000; the budget item approved for the fiscal year 1952 is $10,000,000. The House Appropriations Committee cut the entire $10,000,000 appropriation, stopping all work on this project. The benefit-to-cost ratio of Albeni Falls is is 2.65 to 1. This project, if permitted to go ahead on the present schedule, plans to furnish 1,140,000 acre-feet of storage by August of 1952, which will make 150,000 kilowatts of power available at Grand Coulee and other down-stream plants. The plant also will provide for three units of 14,200 kilowatts, or a total of 42,600 kilowatts developed at site.

Again, gentlemen, our people in the Pacific Northwest are convinced that the National Defense Mobilization Board was created because of a national emergency. They, likewise, have complete confidence that a thorough, analytical research was made of the power needs and requirements for our present national emergency.

We are shocked beyond words by the elimination of $10,000,000 from this project in the face of our national defense power needs and the substantial benefits that this power will produce.

For the second phase of the program recommended by the Defense Mobilization Board, the Bureau of the Budget requested funds for the initiation of construction of Ice Harbor lock and dam and the Dalles lock and dam. Representative of editorial comment in the Pacific Northwest is the following article which appeared in the Longview Daily News, Longview, Wash., on June 9, 1951, entitled, "River Funds Cut United States War Aims New Mystery Plot."

"Those who call for economy in Government should not squawk when any of their pet Government spending projects get hit. That is somewhat the position we find ourselves in with the House Appropriations Committee recommending a 20-percent cut in the Army engineers rivers and harbors program for the next fiscal year. That will hurt Columbia River development considerably. It may mean that no new dams can be started when we know full well that if we are to have the power we will need 5 or 10 years hence, those dams must be built. The committee eliminated from the bill funds to make a start on Ice Harbor and The Dalles Dams.

"We're afraid that critics of Federal power development in Congress are using the war emergency as an excuse to further their long-time aim of holding back the Columbia water resources program. The committee said no new projects should be started this year because of the need to conserve funds and energy for the defense program. That is, in a way, ridiculous. It is true that money spent on new dams this year won't produce any electrical energy this year or even next. But if America hadn't had Bonneville and Grand Coulee when World War II broke out, it would have been handicapped.

"Private industry is being given special tax concessions as an incentive to expand and increase production. Here is a congressional committee which says that the same emergency which necessitates more industry makes it necessary to stop building dams which supply industry with power. It wouldn't surprise us if congress overruled this committee recommendation."

Project No. 4. The Dalles lock and dam

The estimated construction cost of The Dalles lock and dam is $326,366,000. It will ultimately have fourteen 70,000 kilwatt units. The first power is estimated to be on the line in November of 1956. The benefit-to-cost ratio is 1.29 to 1.

The Bureau of the Budget recommended an $18,000,000 allocation to initiate planning and construction. There were two points raised by the House committee as follows:

1. The fact that it is a new start.
2. The Indian fish question.

I believe the editorial quoted above is representative of our thinking, not only in the Pacific Northwest, but nationally. We must plan for the future if we are to have an effective national defense mobilization program. Congress must, of necessity, lead public opinion. If we are to have full cooperation of the public in an all-out national defense mobilization effort, we must be given the tools with which to work.

No new starts on power production is about as acceptable to the public as fighting World War III, or defending our Nation against having to fight World War III with World War I or World War II potential.

The question of Indian fishing rights in connection with The Dalles lock and dam is recognized by everyone; however, the settlement of that particular issue before the construction of the dam is to be undertaken does not seem to warrant more than passing consideration.

I well recall, during World War II, I was mayor of my community, Walla Walla, Wash.; the Federal Government determined that in the national defense effort it was necessary to construct a military airbase. They did not wait until we had acquired all of the property. We secured the right to go on the property and started construction. It did not prejudice the case of any landowner. If the settlement was not satisfactory, the landowner had recourse to the courts of this land.

Therefore, it seems to us that Congress could assert itself in this particular instance; and, without any injurious effect to the rights of the Indians, go ahead with the initial construction of The Dalles Dam and carry on negotiations for a settlement of the Indian rights. For again, we come back to the basic questions, "Is there a national emergency? Must we prepare and strengthen this Nation for the possibility of future attack from an enemy from without our borders?" Again, this is not a dissipation of money. This project, as all of our projects in the Columbia River Basin system, will pay back to the Federal Treasury, with three percent interest, 75 to 90 percent of the funds invested for our national well-being.

The Indians are entitled to a forthright statement from the Congress that their rights will be protected and that they will be compensated for damages. It is our considered opinion that neither the Indians' rights, nor the Government's rights, will be jeopardized or prejudiced by such action.

It is to be hoped that the Senate Appropriations Committee will restore the $18,000,000 to initiate planning and construction of this project.

Project No. 5. Ice Harbor lock and dam

More misstatements have been uttered by the opposition to the Federal Power Development Program in the Pacific Northwest against Ice Harbor lock and dam and more untruths have been asserted against this project than against anyone other multiple-purpose dam in the over-all comprehensive program.

The people in the Pacific Northwest ask, "Why?"

I attended the Columbia Basin Inter-Agency Committee meeting in the city of Tacoma, Wash., on June 26 and 27, 1951. Along with the representatives of the Federal agencies in our area, Governor McKay of Oregon, Governor Langlie of Washington, and the State engineers representing the Governors of Idaho and Montana were present.

By unanimous action, the Columbia Basin Inter-Agency Committee reaffirmed its position of 1947 regarding the fish question and urged that Ice Harbor lock and dam, the Dalles lock and dam, and Albeni Falls go forward as planned.

There is 98 percent unanimity of opinion behind Ice Harbor lock and dam. Still, the two percent are able, by misrepresentation and propaganda, to thwart the will of the people of the area.

The total estimated cost of this project is $95,899,000. Allotments to date have been $1,132,600, and the request for fiscal year 1952 is $4,000,000. Ice Harbor lock and dam is ready to go forward immediately upon appropriation of construction funds. In excess of $1,000,000 has been expended in the planning and design of this project. As a system project, the benefit-to-cost ratio is 1.30 to 1, or a 30 percent return on the money invested.

As an individual project, independent of any other river improvement or the construction of any other project, the benefit-to-cost ratio is 1.04 to 1, or a 4 percent return on the money.

This committee has had testimony from responsible agencies of Government as to the importance of this project to the Atomic Energy plant at Hanford, Wash.

You have had testimony to the effect that in the event that this project is not built at this time, $5,000,000 would have to be expended in transmission lines which largely would be useless when the project is ultimately constructed.

The fish controversy is largely centered around Ice Harbor lock and dam. Thus the fish interests stated that there was a considerable spawning area from the mouth of the Snake River to Lewiston, Idaho, a distance of 140 miles which would be inundated and be disastrous to the fishing industry. The director of the Fish

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Commission of Oregon, in testimony before the House Appropriations Committee on May 5, 1951, with reference to this question, stated, "It may be safely stated that about 95 percent of Snake River chinooks and steelheads now spawn above all four dam sites." The fish question had the very serious consideration of the Columbia Basin Inter-Agency Committee in 1947 when a 10-year moratorium was suggested by the then Assistant Secretary of the Interior. After a full 2-day hearing and several months of factual consideration of the problem, the Columbia Basin Inter-Agency Committee recommended that there should be no rescheduling of the dams and the program should go forward. This was concurred in by the Federal Inter-Agency Committee.

There is no one in our organization, nor in the Pacific Northwest, who has disregarded the fish potential. Nevertheless, we are through with misstatements. Every factual record shows that fish are going over the Bonneville Dam upstream, and they are going downstream. However, we do find this—that in the coastal streams of Oregon where no dams are located salmon is almost to the point of extinction. The Puget Sound area has practically the same parallel of depletion as on the Columbia River.

In reading an article contained in the Pacific Fisherman, June, 1951, I noted that a representative of the United States Fish and Wildlife Service pointed out that a report on the Alaskan salmon in the Karluk district during the past 20 years (1925–45) showed the catch going from about 2½ million in 1925 to about 150,000 in 1947.

They have this to say, "Although more than 50 percent of the run has consistently been allowed to escape the spawning grounds, the run has continued to decline."

We are ready, anxious, and able to apply the ingenuity of science and engineering to this problem. However, all facts point to the reality that depletion of salmon in all areas in the Pacific States is due to a multiplicity of causes, the main one being the complete disregard of the commercial fisherman for conservation and continual exploitation and overfishing. Our people plead for the politics to be taken out of this situation as you did when you ordered the construction of McNary lock and dam.

The Corps of Engineers have discovered some rather interesting information regarding the passage of fish over the dams through the slack-water pools which would be of interest to the members of this committee.

I am quoting from a letter of April 21, 1947, on the question of fish: "The effect that McNary Dam will have on the migrations of Columbia River salmonoid fish can be judged by the splended results obtained in the operation of Bonneville Dam. Furthermore, experience at Bonneville Dam points to the conclusion that dams which drown out swift turbulent rapids are helpful to migrating adult fish. The fact is that before the construction of Bonneville Dam it took salmon runs appearing at Bradford Island (site of Bonneville Dam) about one week to reach The Dalles, whereas at the present time it takes only half of this time to reach The Dalles from the time they appear at Bonneville Dam. It is to be noted that when McNary Dam is completed, the maximum velocities which the fish migrating upstream will encounter will be only about one-half as great as the lowest velocity encountered under existing natural conditions and one-fifth as great as the extreme velocities under natural conditions."

I am sure it will be of interest to the members of this committee to have some factual information regarding some other aspects of our Federal power development program in the Pacific Northwest—how it has worked in the past to the benefit of the Nation and to the region.

It has been charged that there has been a gross discrimination by the Bonneville Power Administration in the sale of federally developed power to public bodies and to private utilities.

In the year 1950, the Bonneville Administration sold to all municipalities, cooperatives, public utility districts, etc., 3,017,601,000 kilowatt hours at an average cost of 3.0 mills per kilowatt-hour. The same year, they sold to the private utilities 3,400,606,000 kilowatt-hours at an average cost of 2.4 mills. In other words, Bonneville Power Administration sold to the private utilities almost a half a billion kilowatt-hours more than to all public distribution agencies and at six-tenths of a mill per kilowatt-hour less.

Another yardstick—in 1938, the net income of the private utilities operating in the Pacific Northwest was $9,543,464. The cost per kilowatt to residences, on an average throughout the entire area, was 2.68 cents per kilowatt. Ten years later, in 1948, the net income of the same utilities was $18,186,983, or a percent increase in net income of 90.5 percent. The cost to the residential consumer was 1.54 cents per kilowatt-hour, or a reduction of 1.14 cent per kilowatt-hour in 1948.

Gentlemen, the Federal Government has assumed the responsibility for the development of power on the Columbia River system and the conservation of our water resources. The Federal Government, likewise, has assumed the responsibility of planning for the defense of this Nation and for our peacetime prosperity.

We, in the Pacific Northwest, do urgently request in this time of national emergency that politics be forgotten, that you do not permit misrepresentation and misstatements of facts to prevail, and that you will go to the bottom of our national defense needs and requirements.

Most certainly, you have at your command persons in and out of Government who have assumed this responsibility; and, furthermore, have the knowledge of our needs, requirements, and potentialities. If the power of the Columbia River system is not needed in the national defense effort, we make an earnest plea, then, that all funds be cut off, and that we come to a complete halt until this national defense emergency period is over.

On the other hand, if power is needed for our national defense effort, then let's cut through the fog of misunderstanding and misstatement. The decision is yours and the responsibility is yours. We have attempted, in some degree, to discharge our responsibility in bringing to the attention of the committee certain facts regarding our projects.

From our study of the situation and of the reports of responsible national defense agencies, we respectfully urge:

1. That the $6,900,000 cut from McNary Dam be restored. As pointed out in the body of this brief, it is not the dollars and cents that are important, it is the time element involved—a 1-year delay in bringing power on the line if this cut is not restored.

2. That $10,000,000 for Albeni Falls be restored. Again, this is not a matter of dollars and cents, but the time element is involved. And, if the power is needed, certainly we can get the quickest power under the Federal system at Albeni Falls.

3. That we cut through the fog of misunderstanding, settle the problem regarding The Dalles Dam, and restore the $18,000,000 to initiate this project.

4. That you cut through the fog of political misunderstanding and misrepresentation regarding the merits of Ice Harbor lock and dam and restore the $4,000,000 requested by the Bureau of the Budget—and, more important, by our national defense agencies. This is the project in which the Congress of the United States has already invested in excess of $1,000,000 for planning and design. This is the project that is ready to go ahead under the fastest construction schedule of any project in the Northwest.

FEDERAL POWER DEVELOPMENT PROGRAM

Mr. WEST. I do want to bring back just a little bit of history for a moment.

I will recall—I have been in your office many times—noticing the various newspaper stories and pictures and cuts of your participation in this Federal power development program for many years.

You will recall when we first started this program in the Northwest a great contribution of Senator Charles McNary of Oregon and Senator Homer Bone and Senator Borah of Idaho, and Senator Clarence C. Dill.

Chairman MCKELLAR. Clarence Dill went with President Roosevelt and myself in January 1933, just before he was sworn in, to see the completion and the action after completion of the Muscle Shoals Dam ,and that is why I recall very distinctly Clarence Dill in the project.

Was he your predecessor?

Senator MAGNUSON. Yes.

Mr. WEST. I have never been able to understand how you have not been able to defend your position when they have been giving Senator Norris the credit for the Tennessee Valley Development, when I thought you were doing the job down there. You have a bad publicity department, Senator.

When we started out in this program back in 1934, you will recall there was considerable opposition to Bonneville Dam, also Grand Coulee Dam, to get it going. There was tremendous opposition on that plan. Today, I think it is a red letter day in the Pacific Northwest, that only 16 years later, you have your private power agencies, public power agencies, Senators and Congressmen all here unanimous for this program.

We know there are some inequities existing because of power shortages. As that power shortage is alleviated, those inequities will work out.

We have a habit in the Northwest of getting into a knock-down, drag-out scrap and coming out with something that is of benefit to the entire area.

Congress has justified the work that the Corps of Engineers has done over the years, and their economic studies. The only quarrel I have had with the Corps of Engineers over the years, has been a very, very restrictive economic justification that they are employing on these projects, that we do not get benefits or indirect benefits of secondary power or anything of that kind, but on the 308 report I would like to remind you that every one of these projects in Willamette Valley, Columbia River, Snake River, individually are economically justified, according to that restrictive economic justification yardstick, each one of these projects on the main stem takes on added benefits as the program develops.

FISH-HANDLING FACILITIES

One continuing problem we have had has been one of fish from Bonneville Dam to the present time. You will recall that on Bonneville Dam it was not the United States Fish and Wildlife because they dragged their feet on that. The President was going to build Bonneville Dam, so the Department of Fisheries of the Department of Commerce were ordered to work with the Corps of Engineers to solve that fisheries problem.

The only record that we have on the Columbia River regarding fish is the fine record of counts going over Bonneville Dam. We come up to the next problem, and you gentlemen will all recall the very bitter fight on McNary Dam—again fish.

It was not on the first appropriation or the second or the third. They were constantly in here on the point that this one dam would destroy 75 percent of the fishery industry. But you went ahead on that because you had confidence in the only Government agency that worked at that time, and is working today to try to solve that problem, the Corps of Engineers.

While they do not have this responsibility by law, nevertheless, as good public servants, they are the only agency of the Government that has actually got down and studied the problem and continued to study this problem.

They have improved the facilities on McNary. They tried to stop construction of McNary by court injunction, saying the fish would not go over the temporary facilities, they would not go against certain currents, but they found they did go over.

There is one very interesting thing they developed in Bradford Island—that is the location of Bonneville Dam.

Prior to Bonneville Dam they found it took the fish almost a week to travel the distance from Bonneville Dam to The Dalles, Oreg. Today the engineers have tagged these fish, and they find that by having this pool water in here the fish have reduced their swimming time from Bonneville to The Dalles by at least 50 percent.

Now, we have always been told that the fish do not eat in fresh water. Therefore, if we can help by these pools in reducing the returning time to the spawning grounds, we believe that is the thing to do.

Then we have had testimony on Ice Harbor. The big jump is from Bonneville Dam to McNary, a distance or height of from 65 to some 82 feet. We only have 10 feet difference on the Ice Harbor Dam over McNary Dam.

I want to clear up for the members of the committee this fact. Because these gentlemen come back here and testify before you, as director of the Washington Department of Fisheries and as director of the Oregon Department of Fisheries, you gain the impression they are speaking for the State and that they are our conservation department. They are not our conservation department.

The fish and game departments of the two States are the conservation departments. These men that have appeared before you in the past on this problem have one responsibility under law, and that is to develop every pound of fish they can for the commercial fishermen.

They do not have the conservation problem. It is the fish and game people. While they do not come out and advocate the building of these dams, nevertheless the fish and game departments are the departments that have worked with the Corps of Engineers of the two States over the years, whenever they had a problem, and not the department of fisheries.

FISH SPAWNING GROUND

I want to point out just one recent inconsistency in this argument to show that these people are opposed, from the commercial viewpoint, strictly a dollars-and-cents viewpoint. You have heard the testimony before you constantly that this area from the mouth of the Snake River to Lewiston, Idaho, where these four dams on Snake River will be located, was the spawning ground, although they could never tell you that they ever saw the fish spawning there; the water had always been too muddy when they went to count the fish.

In recent testimony, however, these same gentlemen have stated that 95 percent of the salmon that enter the Snake River spawn above the site of the four Snake River dams. Now they acknowledge what the Corps of Engineers knew 10 years ago.

Now these people come out and acknowledge that as a fact.

In this entire program, we people in the Pacific Northwest have demonstrated that we feel this way: If we have a national defense emergency, Mr. Chairman, if we have an emergency here, let us recognize that emergency. If we do not have that emergency, then do conserve your dollars.

Senator, I only want to point out the fact that every time this committee of Congress has made a determination that a dam is going to go forward then we apply ourselves to that problem and the problem is licked. As long as we are going to listen to arguments pro and con, we are all experts when we get out of our home towns, you know that,

we come back here and speak with authority, but every job you have given to the Corps of Engineers to do, not only in the Pacific Northwest, but over the Nation as a whole, you have come out with that engineering problem solved.

We know what they have done in the Northwest, and if they are given the responsibility of getting fish over these dams and getting those fish down they are going to solve that problem.

You have made that determination on Bonneville. You have made it on McNary. There should be no further hesitancy on making it on Ice Harbor on that same problem.

HOUSE CUT, M'NARY DAM, WASHINGTON

Chairman McKellar. I want to say this about the Corps of Engineers. I have been closely associated with them for about 40 years. I think it is one of the finest organizations in our Government, and one in which I have the utmost confidence.

Mr. West. Now, Senator, with reference to McNary Dam, that $6,900,000 cut there is not just a dollars-and-cents cut.

Chairman McKellar. How long will it take to finish it?

Mr. West. It was scheduled to come in in 1953.

The seriousness of this is—and I believe Colonel Potter will verify this—that McNary Dam is now at the point of construction where practically the whole construction program goes along simultaneously. It goes together. Consequently, if you take out $6,900,000 from that, that means a delay in everything. It does not mean the individual item that that was for.

I would estimate that it would cause a year of delay on power that would come from McNary Dam.

Now, a year of delay in the coming on of McNary Dam—and we say that that $6,900,000 is going to be paid back to the Treasury, dollar for dollar, and with interest. It does not make common sense to the people who are patriotic out there and feel this power has to come on.

ALBENI FALLS PROJECT, WASHINGTON

Then we have Albeni Falls with $10,000,000, if that program is to go on and produce downstream benefits as explained to you of some 100,000 kilowatts and then 42,000 kilowatts at the site.

THE DALLES PROJECT, WASHINGTON

You have the question of The Dalles, of the fish question, of the tribal treaty rights.

I was serving as mayor of my community during World War II, when you established out there an air base. It was necessary to build that air base. Consequently we did not wait until we had all the rights of the property owners settled. I have forgotten the legal term. You are a lawyer, Senator, you know what the legal term is. They got permission to go ahead immediately. They did not prejudice the landowners' rights in the courts in any way, but they went on and did that job.

With reference to The Dalles, certainly everyone out there realizes we have tribal treaty rights and the Indians are entitled to compensation on that.

If we have a national emergency, I do not see why in the world Congress cannot apply the same logic to that, go ahead and build that dam. Still you are not prejudicing the rights of the Government or of the Indians in any way. Let that go to negotiation. Let it go to the courts later on, but bring that dam in.

ICE HARBOR DAM, WASH.

The same thing on the Ice Harbor Dam. It does not make any sense to us that Congress continues to give tax concessions, amortization concessions, to private industry to expand industry for national emergency developments and then by the same token, the same Congress sits and denies funds for new starts in order to give the power to these defense industries that you are giving tax concessions to today in order to do a job.

Senator MAGNUSON. I might add there, Mr. Chairman, Ice Harbor Dam is the dam directly adjacent to the atomic energy plant, about which we put the letter in the record, in which they expressed great fear that unless they had a direct connection with a generating plant, such as Ice Harbor, which they point out, that another breakdown may cause the interuption at that plant.

I do not think anybody in the country would want to see that happen.

Senator STENNIS. Is Ice Harbor a new start?

Senator MAGNUSON. Ice Harbor is a new start.

Senator STENNIS. Why did they put this atomic energy plant there in the first place?

Senator MAGNUSON. It has been there ever since World War II.

Senator STENNIS. If there is such a scarcity there, why did they put it there?

Senator MAGNUSON. There was no such scarcity when they put it there, but the power load in the whole system has become so great that they had a threatened breakdown in the whole Bonneville System. What they have to have is a direct line to a generating plant so they can switch over.

Mr. WEST. We have been talking about power exclusively this morning, because power does overshadow everything that we have out there.

This program started out there as a navigation program on the river.

MULTIPLE-PURPOSE PROJECTS

I recall on Snake River we were considering a series of head dams for navigation, and now it is multiple-purpose dams. These dams provide navigation to these pools, provide flood control, provide irrigation and reclamation as well as power.

You will see that the Federal program is on the main stem of the Columbia River, on the main tributary of the Willamette and on the main tributary of the Snake River, with your flood-control dams at Hell's Canyon, Libby, Albeni Falls; they are the only dams off the tributary and off the main stem. They have tremendous navigation benefits.

We have an ordnance plant located right below McNary Dam. The first 6,000 tons of ammunition that were shipped down the river by

barge from this plant saved the Army Transportation Corps $100,000 on 6,000 tons.

Better than the dollar savings, however, is the fact that it expedited the loading at the port of Portland by about from 30 to 40 percent, meaning that they could go on and deliver this overseas where it was necessary.

TRANSPORTATION COSTS

We have tremendously high transportation costs in the interior. We are finding that by the same yardstick your Federal distribution service on power, this yardstick of water navigation coming into the interior is doing a great job for us in the Pacific Northwest of leveling off and reducing those transportation costs.

Senator STENNIS. Actually reduce them? Do you have figures on that to prove your statement?

Mr. WEST. Yes. We will take this area below McNary Dam. The rate on wheat, all-rail, from these eastern Oregon counties into Portland and Vancouver today, in 1951, is on the same level as the 1930 all-rail rates.

Now we know nationally, and in the Pacific Northwest, just above McNary Dam where that influence is not felt, our all-rail rate on wheat is 52½ percent higher. So your water influence has kept your 1930 rate against all the increase the Interstate Commerce Commission has allowed.

On petroleum they are doing a bigger job and a greater job. Petroleum is brought up to McNary, Umatilla, and into The Dalles area. You are familiar with the Interstate Commerce Commission Act, that for each 1 mile of water haul they can transfer that on land 2 miles. In other words, we come up here 300 miles and we can have the benefit of joint rail and water rates 600 miles into the interior.

Today we are distributing petroleum throughout northeastern Washington, western Montana and down into southern Idaho on the same level as the 1934 all-rail rate.

Senator STENNIS. Mr. Chairman, I expect these gentlemen would like to be advised that you are going to have to vacate the room at 2:15.

Mr. WEST. I submit the case, Mr. Chairman. I know of your very persuasive powers in conference with Mr. Cannon. We do hope sincerely, sir, that we have shown you the necessity for restoring the cuts and the new starts. Those new starts were not our thoughts, not the Corps of Engineers' thoughts, but coming from the Defense Department downtown. They were not picked out of the hat; they were picked out of a very logical program for the protection and development of our Nation.

I would like, if you would, to have you hear our president for just a moment—Mr. Baker.

STATEMENT OF CHARLES F. BAKER, PRESIDENT, INLAND EMPIRE WATERWAYS ASSOCIATION, WALLA WALLA, WASH.

LOW-COST POWER REQUIRED FOR PHOSPHATE INDUSTRY DEVELOPMENT

Mr. BAKER. I want to make one observation, other than endorsing everything Mr. West has said.

In addition to being president of the Inland Empire Waterways Association, I am general manager of a farm cooperative that serves 75,000 farms in that territory. We are concerned with another thing, from the national standpoint. That is, phosphate fertilizer.

Here in southern Idaho is 60 percent of the phosphate deposits. American farmers from Illinois west are vitally interested in that. We need the low-cost power to develop and process that phosphate rock for 20 Western States.

I do not need to tell you how important commercial fertilizer is for the farmers of America. We have to have food. We need additional power. From that angle alone it is of great national significance.

I submit to you, in addition to all these other things there is another reason from the standpoint of agriculture, a very important fact.

Chairman McKellar. That makes quite an impression on me, because by the use of phosphate and cottonseed meal and several other ingredients I made a greater reputation as a farmer when I was about 10 years old than I ever made as a statesman since that time, and your argument impresses me very much.

Mr. Baker. Mr. Chairman, I wish to present this statement for insertion in the record.

Chairman McKellar. Without objection, your statement may be placed in the record.

(The statement referred to is as follows:)

Statement of Charles F. Baker, President, Inland Empire Waterways Association

My name is Charles F. Baker, president of the Inland Empire Waterways Association, whose main offices and headquarters are located in Walla Walla, Wash. The Inland Empire Waterways Association has as its membership a broad cross section of the citizenship of the territory in eastern Oregon, eastern Washington, and northern Idaho adjacent to the Columbia and Snake Rivers.

As a farmer and a businessman from this great Pacific Northwest, I am appearing before you today as an ordinary citizen of the country for the purpose of giving you factual information which may be of assistance to you in helping to determine the amount of appropriations needed in connection with the water resources development of the Columbia and Snake Rivers in the interest of national defense.

Our people in the Northwest are keenly aware of the major part played by hydroelectric power in the Pacific Northwest during World War II. From many agencies charged with the responsibility of national defense, we have been given to understand that a substantial amount of additional electric power is sorely needed to meet national defense requirements. We also understand that responsible agencies of the Government, including the Defense Mobilization Board, the President and the Bureau of the Budget submitted, for the consideration of the Congress, certain power projects to be developed by the Federal Government which would tend to relieve this situation. Among these projects designed to secure additional power was the speeding up of the construction of Chief Joseph, Hungry Horse, McNary, and Albeni Falls Dams.

In addition, two new dams were recommended in order to secure additional blocks of low cost power for national defense—Ice Harbor lock and dam, and The Dalles lock and dam. We have made careful studies of the findings of the Corps of Army Engineers with respect to the economic justification of these dams. We believe they should be built and built now in order to take care of national defense needs. There seems to be no argument on the part of any informed person that great quantities of cheap hydroelectric power are vitally essential to a major national defense effort. In our judgment, these two dams will help to meet this need. National defense is costly and generally there is little left to show for the countless billions spent for equipment and material for this purpose. One of the few exceptions is the record of Grand Coulee and Bonneville

Dams and the great contribution which they made toward winning World War II, and are still contributing in a major way to our national-defense requirements as well as functioning effectively in a peacetime economy. They represent a real investment on the part of the Federal Government and are rapidly returning, with interest, to the Federal Treasury the money initially spent for their construction. The same will be true of McNary, Chief Joseph, Albeni Falls, Ice Harbor and The Dalles Dams, once completed. They will provide that great reservoir of low cost electric power so essential to national defense and yet when peace once more governs the world, they will stand there as a great investment on the part of the Federal Government, the income from which will rapidly repay the taxpayers and the products in the form of great quantities of low cost power, reclamation, and navigation will add greatly to the future economy of the Nation.

High food production on the part of the farmers of America is also of vital importance to our national defense. In each previous World War, it was repeatedly said that "food will win the war." Should we become involved in an all-out war again, undoubtedly the same would be true. High food production to meet national defense needs in turn requires an ever-increasing quantity of commercial fertilizer. One of the sources of phosphate fertilizer, looking to the future, must be from the phosphate rock deposits of southeastern Idaho, where 60 percent of the phosphate rock deposits of the United States lie. This rock can be processed either with sulfuric acid or low-cost electric power. I do not need to tell this committee how acutely short the supply of sulfur or sulfuric acid is to meet our national defense needs. The low-cost power from Ice Harbor, The Dalles, McNary, and Chief Joseph Dams, when available, and brought to the phosphate deposits of south Idaho, will provide a medium for processing this rock on a low cost, efficient basis and thus make available for the western half of the United States the great quantities of phosphate fertilizer so essential to food production in both peacetime and during times of national emergency. I cannot too strongly emphasize the importance now in a time of national defense, as well as in a peacetime economy, of the important part which low-cost electric power will play in providing our farmers of the western half of the United States with the phosphate fertilizer they must have.

We citizens of the Pacific Northwest are ready, willing, and anxious to do our part to make this Nation strong, to meet this challenge of national defense. We want aggressive, constructive, efficient action in meeting this national emergency.

We want to see the water resources development of the Columbia and Snake Rivers, because of its major contribution to national defense needs, pushed ahead vigorously and aggressively in the public interest and in a manner utterly devoid of partisan politics.

It is our firm belief that in addition to present dams under construction, the recommendations for $18,000,000 to start construction of The Dalles Dam, and the $4,000,000 to start construction of Ice Harbor lock and dam this year is highly essential to our national defense and our future economy as we look down the road.

INTEGRATION OF NORTHWEST FEDERAL POWER PROJECTS

Chairman McKellar. Senator Magnuson, do you have anything further?

Senator Magnuson. No, sir. I just want to express on behalf of everyone here, our appreciation for your kind courtesy in sitting here so long.

Chairman McKellar. They have made some wonderful statements this morning.

Senator Magnuson. Dr. Raver has a comment.

Dr. Raver. Mr. Chairman, I am supposed to testify before this committee at some time, presumably, with the representatives of the Department of the Interior.

I am wondering if I could file my statement with this record because, so far as the Bonneville Power Administration approach is concerned, everything that we have to present has certainly been presented very well here.

Chairman McKellar. Is it in accordance with what has been said?

Dr. RAVER. Yes, sir.

Chairman MCKELLAR. All right, the statement will be filed as a part of the record.

(The statement referred to is as follows:)

STATEMENT OF DR. PAUL J. RAVER, ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION

Mr. Chairman and members of the subcommittee, I am glad to have this opportunity to discuss with you the power situation in the Pacific Northwest and the important relation of the Corps of Engineers' projects to the power problem.

I am sure that you are familiar with the fact that the Pacific Northwest has the most serious power shortage of any region in the country, while, at the same time, it has by far the largest potential of hydroelectric power in the country. Over 4 million kilowatts of hyrdoelectric power have been developed in the region to date and provide most of the electric energy consumed in the area. This can be compared with most of the rest of the country where steam generated power is the main source of electric power.

The contribution that this hydroelectric development in the Pacific Northwest made during World War II is a matter of record. Plants that produced more than one-third of the aluminum for planes and other military equipment, the Hanford Engineering Works of the Atomic Energy Commission, shipyards, and other vital war plants and establishments were possible because of the large quantities of hydroelectric power available. There is another 30 million kilowatts available to be developed in the Columbia River Basin in the United States. This is in addition to the more than 4 million kilowatts presently developed. Obviously, such a national asset could be of immeasurable value in the present defense program.

The power situation in the Pacific Northwest is related to and dependent on the multiple-purpose development of the Columbia River and its tributaries. As you are well aware, the program of the Corps of Engineers is a major part of that multipurpose development, particularly as it relates to flood control, navigation and power. Its power plants, together with those of the Bureau of Reclamation, provide the generation which the Bonneville Power Administration markets for the Federal Government. These Federal plants are interconnected and operated as a single power system.

The significance of the Corps of Engineers' projects: McNary, Albeni Falls, Ice Harbor, The Dalles, and others, can be fully understood only in the light of their relation to the one integrated river system.

The technological advances and management experiences of recent years have indicated the importance of viewing a river system such as the Columbia on a completely integrated operation of facilities from the headquarters to tidewater. This means that the various facilities from the large storage projects in the headwaters to the run-of-river plants in the lower river areas are planned, designed, and constructed so that they are operated as one system, both hydraulically and electrically. Through these means, benefits are obtained which are far greater than the construction and operation of a number of projects, each one of which is treated by itself on an isolated basis. The advantages of integrated operation are matters of clear record and have been presented many times. In the Columbia River Basin the power benefits resulting from integrated operation are outstanding. The comprehensive plans have made full use of this technique and the proposals for the addition of new projects in the Pacific Northwest on the Columbia River system have been carefully reviewed and selected in order to develop this system in the best possible sequence to obtain maximum benefits for the multiple purposes, including a balance between upstream storage and downstream run-of-river plants. McNary, Chief Joseph, Albeni Falls, Detroit, Lookout Point, The Dalles, and Ice Harbor all of which are navigation, flood control and power dams, are all essential parts of this hydraulically and electrically integrated system.

It is very important that the projects which are proposed for construction by the Bureau of Reclamation and the Army Corps of Engineers be considered in light of this over-all plan of development. To review the projects proposed by either of these agencies for construction in the Pacific Northwest as separate and isolated facilities is to overlook very basic and unique values that exist in the region.

The integration of the Federal projects into a single electrical system has one further aspect—that the power facilities are interconnected with the nonfederal public projects of communities and public utility districts and privately-owned utilities, and the power facilities are all operated on an integrated basis. This means that diversities in loads and stream flows on the coastal tributaries where the private utilities and other nonfederal public utilities have hydroelectric plants contribute a large amount of additional saleable power when these plants are operated as a part of an integrated system. The 230,000-volt transmission grid of the Bonneville Power Administration provides the vehicle by which this electrical integration is accomplished.

Just as integrated operation of Army and Bureau of Reclamation projects is essential for maximum benefits for power operations, so also is integrated operation necessary to obtain maximum benefits for flood control, navigation, irrigation, and the other multiple-purpose features of the river development. The Federal and State agencies in the Pacific Northwest have taken steps to deal with this by the establishment of a subcommittee of the Columbia Basin Inter-Agency Committee. Mr. Frank Banks is chairman of that subcommittee.

As pointed out above, the Bonneville Power Administration markets the power from Federal dams constructed by the Bureau of Reclamation and the Army engineers in the Pacific Northwest. At the present time, this includes Bonneville Dam, a Corps of Engineers project, and Grand Coulee Dam, a Bureau of Reclamation project. Eight more are under construction. In carrying out this responsibility, the administration builds transmission lines, substations, and related facilities to transmit the power from the projects to load centers. These transmission lines also serve as a backbone network which ties together the power plants at the various Federal projects to enable integrated operation.

Power requirements and resources in the Pacific Northwest must be considered as a whole. The power facilities of the privately-owned utilities, publicly-owned systems, and the Federal system are all interconnected and operated on a pool basis. The Federal system provides more than half the total energy for the region, and for some years now the private and public systems have planned on the major expansions in power capacity to be the large multiple-purpose projects of the Federal Government on the Columbia River and its tributaries. With this pattern, the power loads and resources of all systems must be viewed for the region as a whole.

In marketing the power from the Federal projects, Bonneville Power Administration sells power only at wholesale. It does not deliver at retail to ultimate consumers. Thus, the power is sold to privately-owned utility systems, publicly-owned utility systems, such as city of Tacoma, Seattle, and Eugene, and to REA Cooperatives. We sell directly at wholesale to large industrial consumers, such as the aluminum plants, atomic energy plant, and to Federal establishments such as military facilities.

To best understand the significance of the power features of the specific projects that are included in the 1952 budget for the Corps of Engineers in the Pacific Northwest, it is necessary to view the power conditions in the region as a whole. This can be most clearly understood by a discussion of a few charts which show the relationship of power loads to power capacities as they exist, as they are scheduled, and as the schedules would be affected by delays in specific projects.

The first chart that I would like to present shows the deficits and surpluses that are foreseen for the Pacific Northwest in the next few years, assuming all projects provided in the President's budget are kept on schedule. Included in the power capacities are the additions which are scheduled by the private utilities and those scheduled by the public agencies, as well as the additions included in defense schedule T of the Bonneville Power Administration. This last schedule T is the current version of the generation schedule of the Federal facilities, which is worked out annually by the Corps of Engineers, Bonneville Power Administration, and the Bureau of Reclamation in the Pacific Northwest. The private utilities are scheduling smaller hydro plants on coastal streams and tributaries of the Columbia River as well as some steam-plant additions. These have been stepped up under the needs of the national-defense program.

The deficits and surpluses are shown under conditions of minimum-year hydroelectric conditions and median-year hydroelectric conditions. It can be seen that under minimum-year hydro conditions the deficit will be around 600,000 kilowatts this coming winter and the following winter. It should be pointed out, however, that this deficit includes 300,000 kilowatts of interruptible power load; i. e., load which will be cut off when water conditions are adverse.

The amount of this interruptible power will rise to about 500,000 kilowatts over the next several years. The electroprocess industries using this power will have to close down their operations in case there is not sufficient water in the river to provide the power necessary for their operations in addition to the requirements of all distributors and holders of firm industrial contracts. Any such curtailment will have an important effect on production for defense and also for maintaining high levels of income in the region and in the Nation. Currently, about 11 percent of the aluminum produced in the United States is being produced by interruptible power purchased from the Bonneville Power Administration. I don't think it is necessary to emphasize to this group the importance of firming up the power supply to such a vital industry. I might also add that magnesium, chemicals, and ferroalloys will be produced in a relatively large volume in the Pacific Northwest by interruptible power. While the above industries are essential for national defense, they are also vital for the expansion of the civilian economy. Trends of the past 30 years show that these groups of industry have been growing much more rapidly than the average of all other industries.

The Pacific Northwest economy, which still depends primarily on forest and agriculture, is developing a new group activity centered around these electroprocess industries. For example, there is already a considerable volume of aluminum products manufactured in the region; whereas 12 years ago, when the first aluminum was poured at Vancouver, Wash., practically no aluminum fabricators were in the region. This is a new source of activity that is essential to the growth and economic maturity of the Pacific Northwest region.

Even with all the proposed projects, the region will not be able to provide power to all potential industries for the next 7 or 8 years. We can start taking on some new industry in about 5 years, providing all generation schedules are met as planned. The appropriation cuts proposed by the House of Representatives in the Army civil-functions bill would mean that no industry other than those which have been committed can be served from the Federal system over the next 7 years and that existing customers may be faced with serious power interruptions, with consequent unemployment, and loss of production essential to the defense program. This will have a serious effect on both the regional and national economy in preparation for defense and expansion to meet civilian needs.

The effect of delays in Ice Harbor and The Dalles which would result if the actions of the House on the 1952 civil-functions appropriation bill prevail is shown by the first overlay. These are new large projects for which recommendations have been made to start construction this fiscal year. Under this schedule, Ice Harbor would produce its first power in December 1955, and The Dalles would have initial generation in November 1956. The seriousness of delay in starting construction on these projects is noted by the effect on deficits in both minimum and median year by the overlay.

The second overlay shows the effect on the deficit and surplus power situation in the Pacific Northwest if the other actions proposed by the House on the civil functions program are to prevail. These other actions include delay in McNary, Albeni Falls, and Lookout Point. Because these projects are scheduled for earlier energization and they are all presently under construction, their effects on deficits take place in the very near future.

The next chart shows the estimated loads by years through 1957–58. By a bar on the left of the load column, the resources under minimum water conditions are shown; and by a bar to the right of the load column, resources under median water conditions are shown. This chart for the region as a whole gives further perspective on the relationship of the deficit to the total load situation. For example, under minimum water conditions, the deficit of about 600,000 kilowatts in each of the next two succeeding years constitutes about 20 percent of the total load for this coming winter and about 16 percent of the total load in the succeeding winter.

The chart also shows the amount of the estimated resoucres that would come from the Corps of Engineers' projects which would be affected by the cuts proposed by the House. The severity of the cuts is very noticeable.

By 1954, we would lose almost one-third of our 40-percent expansion scheduled between now and that year, whereas we really need to increase our power supplies by more than the 40 percent expansion now scheduled. The proposed short-term non-Federal projects would help the region do this.

From the above, I think you can clearly see, from the power point of view, the need of maintaining these projects as originally scheduled to provide the power necessary for defense and for the normal expansion of our economy. Even this

schedule does not make possible the contributions which the Nation has a right to expect from the resources of the Pacific Northwest. Any possible acceleration of new power supplies should be effected in the public interest.

Another point I would like to present is the preliminary report we have just made on the financial operations of the Federal system in fiscal year 1951 just completed.

For fiscal year 1951 the power revenues were about 35.6 million dollars, of which over 13 million dollars were net. This is on a cost basis after allowing for interest, depreciation, and operation and maintenance. The power revenues from Federal projects has amounted to approximately $224,500,000 from the beginning of operations. Of this, the net revenues amount to about $68,100,000.

On the pay-out basis, the repayment of the Federal investment, to be paid out of power revenues as formulated in the early years of the Federal system in the Pacific Northwest, is well ahead of schedule.

Revenues from power sales go directly into the United States Treasury, with assignments shown to repay the Federal investment on the facilities, the cost of which is allocated to power, to cover interest on the investment, and to repay irrigation features of the Columbia Basin project to the amount over and above that which the water users are able to pay.

On the basis of the above, it is clear that the investment made by the Federal Government in the power system in the Pacific Northwest is more than paying its way.

Senator STENNIS. Mr. Chairman, when I first became a member of the Public Works Committee and a member of this subcommittee one of the first things that impressed me was this great Columbia River Valley, Snake River, and other tributaries, and what a great area of growth, production, and wealth is going to be created out there.

Another thing I am impressed with is the very fine showing that these gentlemen have made here today. I want to ask, though, where they did get all this unanimity. You know, Mr. William Bankhead used to be the president of the Farm Bureau, and he said he would never let the Farm Bureau come to the Hill until they had agreed among themselves. That is the way to come in here—agreed on something.

Chairman MCKELLAR. I think this is one of the best hearings we have had.

STATEMENT OF HON. RUSSELL V. MACK, A REPRESENTATIVE FROM THE STATE OF WASHINGTON

ALBENI FALLS PROJECT, WASHINGTON

Senator Cain. This unanimity has come out of the fires of experience and competition and hard knocks.

Mr. Chairman, Congressman Mack, from the State of Washington, desires to present his statement for the record.

Chairman MCKELLAR. Without objection, his statement may be placed in the record.

(The statement referred to is as follows:)

STATEMENT OF HON. RUSSELL V. MACK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mr. Chairman, all American military authorities are agreed that, if war should come within the foreseeable future, air power will constitute our first line of defense. To possess air power we must have an abundance of planes. To have planes we must have aluminum.

Aluminum cannot be produced without an abundance of cheap power. Abundant power, therefore, is one of our greatest and most immediate defense needs.

Without this power, we cannot have the abundance of aluminum on which our security depends. A due regard for our security, thus, would seem to dictate that we should develop to completion new sources of power as rapidly as our economy will permit.

The greatest source of undeveloped electrical power in the world lies in the valley of the Columbia River. Although great strides already have been made in developing cheap power in this region, the power presently available is still far short of the needs of the war industries of the area, including aluminum. More money should be provided by Congress to hasten these Columbia River power projects, for they will add to our security in war and provide abundant cheap energy to maintain our domestic prosperity in peace.

One of the hydroelectric dams in the Columbia Valley, construction of which should be speeded, is that at Albeni Falls, Idaho.

The United States Engineers, in testimony before the House Appropriations Committee, said that by the expenditure of $10,000,000 on the Albeni Falls Dam an additional 100,000 kilowatts of electricity could be obtained within 13 months. This means the production of an annual kilowatt of electricity at a cost of only $100 a kilowatt, an unusually low cost figure. Furthermore, these 100,000 kilowatts can be obtained quickly, in only 13 months, according to the testimony of the United States Army engineers.

The United States Engineers estimate the ratio of benefits to the cost of this dam at 4.47 to 1, an unusually high ratio of benefits to costs, I am sure you will agree.

Albeni Falls is not a new project. Three millions were appropriated last year to start it. Work is already under way on its construction, and sufficient money to equip this dam to add 100,000 kilowatts to the power production of the Columbia River Valley should be made now.

The entire Albeni Falls Dam project, when fully completed, will cost about $33,000,000 and will add about 250,000 kilowatts to the Columbia River power-production capacity. There is no dam on the entire river that will produce so much power for such a comparatively small investment.

This is not just an expenditure which, when the money is spent, will be gone forever. The project is self-liquidating. The power this dam produces, when sold, will repay the Federal Government all of the money, with interest, invested in the project. In short, this dam will pay for itself through power sales. The taxpayers, in the long run, will not be out a cent.

Another project for which additional funds should be advanced, in my opinion, is the McNary Dam. This dam already is far advanced in construction. The sooner it is completed, the quicker it will begin producing salable power and, through power sales, start repaying the Federal Government for the investments made in this project. If I were the owner of a large apartment house that was two-thirds completed, I would, as a matter of wise economy, hasten to finish it as soon as possible so that I might begin deriving returns on the investment already made in the partially completed structure. The same economic principles should, in my opinion, cause the Federal Government to hasten the completion of the McNary Dam so that it can begin producing power just as soon as possible and through the sale of this power begin providing revenues for the Government. Hastening the completion of the McNary Dam will not only assure an earlier start in earnings to repay the Government's investment in the project. Earlier completion of this project also will advance the day when desperately needed power will be available to our power-hungry Pacific Northwest defense industries.

Nothing, in my opinion, will add more to the effectiveness of our national-defense effort than the development of abundant cheap power. Furthermore, investments in such projects have the added advantage to our economy in that they are self-liquidating and will be useful in peacetime as well as wartime.

RESTORATION REQUESTED ON OREGON-WASHINGTON PROJECTS

Chairman McKELLAR. Senator Magnuson, do you have anything further?

Senator MAGNUSON. No, Mr. Chairman; thank you very much.

Senator CAIN. I would like to say that by the time these gentlemen get home they will have traveled approximately 120,000 miles in order to bring the story of the Pacific Northwest to the Congress, and I feel very grateful to you, Mr. Chairman, for your indulgence.

I do think that these gentlemen have added to our collective knowledge about what we are concerned.

Mr. ERDAHL. I have just one more point. Because we have made a lot of statements, and we have a lot of factual data to back these statements up, could I leave this suggestion with you: that, in going over these projects and anything else that applies to power in the Northwest, if we could help supply additional information for your consideration, would you please give us that opportunity to do that so that we can make our case as solid as possible in bringing our claim before you?

Chairman MCKELLAR. You have certainly made it very solid here today.

Colonel POTTER. May I ask permission to submit for the record the justification for restoration sheets of the Corps of Engineers for the Northwest projects that these gentlemen have represented so ably, and also the four letters having to do with items of their appropriation that have an effect on this?

Chairman MCKELLAR. Yes.

(The material referred to is as follows:)

JUSTIFICATION FOR RESTORATION, MAINTENANCE, AND IMPROVEMENT OF EXISTING RIVER AND HARBOR WORKS

Item No. 31 (p. 136). McNary lock and dam, Oregon and Washington

Total estimated Federal cost	$270, 000, 000
Allotments to date	112, 185, 000
Additional to complete	157, 815, 000
Approved budget estimate	42, 900, 000
Amount allowed by House	36, 000, 000
Restoration requested	6, 900, 000

EFFECT OF REDUCTION

A reduction of $6,900,000 in the McNary funds for fiscal year 1952 will reduce the funds available for the third step contract providing for the remaining portion of the spillway, powerhouse, abutments, appurtenant structures, roadways, and railway spurs. The contract was awarded in April 1951 at a cost in excess of $58,400,000. Inasmuch as acquisition of rights-of-way, and construction of relocations must be completed prior to raising the pool level, it will be impossible to reduce funds for these items in order to permit construction to continue on the powerhouse and spillway. Similarly, contracts for equipment for the powerhouse, spillway, and lock must continue since they must be available when construction of the powerhouse and spillway reach the stage where they are required. The approved budget estimate of $42,900,000 will permit only an allocation of $18,421,000 to the third step contract. The major part of the reduction must therefore be applied against features of work included in this contract. A slower rate of progress thereunder would delay placing power on the line from December 1953 to December 1954 at a time when power is so critical that the Defense Electric Power Administration is requesting the Corps of Engineers to speed installation of the units from 4-month intervals to 3-month intervals, and is also urging further increase of the rate of installation to permit the completion of six units per year rather than four.

JUSTIFICATION FOR RESTORATION

With further reference to the allocation of funds for continuation of work under the third step contract during fiscal year 1952, detailed study based on final construction drawings and on more definite requirements on the phasing of construction operations of the various features of work under that contract indicates that the contractor will be able to complete work in excess of the allotment proposed under the approved budget estimate of $42,900,000. A faster rate of progress would be of great value in assuring that power can be placed on the line

in December 1953 and also assists greatly in the coordination for passing of fish runs and installation of powerhouse equipment.

The date of December 1953 for first power on the line would contribute greatly to national defense by increasing the power output in the Pacific Northwest by 140,000 kilowatts.

Item No. 32 (p. 139). The Dalles Dam, Columbia River, Washington and Oregon

Total estimated Federal cost	$326, 366, 000
Allotments to date	800, 000
Additional to complete	325, 566, 000
Approved budget estimate	18, 000, 000
Amount allowed by House	----------
Restoration requested	18, 000, 000

EFFECT OF REDUCTION

Failure to receive funds will delay indefinitely initiation of construction of a project which was scheduled to provide generating capacity of 140,000 kilowatts by November 1956 and 980,000 kilowatts by November 1959. Neither existing hazards to navigation in the approximately 30-mile reach immediately upstream from The Dalles, Oreg., nor the Dalles-Celilo Canal, which forms a bottleneck restricting water traffic, will be eliminated if the slack-water pool above the Dalles Dam is not created.

JUSTIFICATION FOR RESTORATION

Indefinite delay in the production of power at this project will result in power-generating capacity failing to keep abreast of the rate of increase in demand for electric power and intensify the already existing power shortage in the Pacific Northwest. Power demands in the area which would be served by the Dalles Dam are increasing so rapidly that power shortages are retarding normal industrial and other developments.

Had this area not experienced better than average stream-flow conditions in the last several years, curtailment of power to some users would have been required. Should minimum water conditions be experienced now, it would be necessary to curtail some 550,000 kilowatts in system loads, of which some 150,000 kilowatts of interruptible loads are used for aluminum production.

Completion of this project will result in far-reaching benefits to national defense and the national economy in that it will provide a large block of power, not now or otherwise available, for war industry. Of special significance is the fact that the Dalles project would require relatively short transmission lines to primary load centers, thereby necessitating the least investment in transmission facilities to serve war industries in the Pacific Northwest.

Present water-borne commerce to the extent of approximately 1,000,000 tons annually is seriously delayed by the necessity of passage through the obsolete Dalles-Celilo Canal and subjected to serious hazards in the form of swift water and treacherous channels in the portion of Columbia River to be included in the pool above the Dalles Dam. Any extensive increase in this commerce such as would be necessary to relieve the railroads of an overload caused by a national emergency would not be feasible because of the limited capacity of the Dalles-Celilo Canal. This condition would be relieved by the construction of the Dalles Dam and navigation lock, the capacity of which will be well in excess of 4,000,000 tons annually.

Considerable investigation has been made for this project. About 72 percent of the axis of the Dalles Dam, including all of the navigation lock, spillway, powerhouse section, and two fishways, lies athwart an exposed reef of massive rock. One of the primary reasons for inclusion of the Dalles Dam in the 1952 fiscal year budget was that construction could be initiated in the near future with a minimum of planning investigation and without the long delays ordinarily involved for such a project. Subsequent to submission of the 1952 budget, the amount of $800,000 was allocated on further and more detailed studies in order to be prepared for initiation of early construction. Included in these investigations were additional hydrology studies, additional exploration work, property reappraisals, aggregate investigations, more detailed surveys and soundings, reanalysis of relocations, together with preparation of improved layout and preliminary designs. Negotiations have been tentatively concluded with railroad companies and private

engineers covering preparation of detailed plans and specifications for highway and railroad relocations.

Due to the legal complexities involved in the Indian fishing problem, the recommendations accepted in the authorizing document were to the effect that monetary settlement with the Indians would be made through a special act of Congress based on a special report by the Chief of Engineers. Both the value of the Indian fishery and the portion of the settlement eventually chargeable to the Dalles Dam are indeterminable at this time. Although the fish that escape the hazards of the lower river and pass upstream via the costly fish facilities at Bonneville Dam are considered brood fish on their way to spawning, 40 percent are taken in the fishery above Bonneville. About 90 percent of these fish are taken by the Indians for commercial purposes and for subsistence. Should the Dalles Dam be the means of eliminating this upstream fishery the conservation benefits will far outweigh the cost of a settlement with the Indians. Further provisions can be made in connection with the Dalles Dam so that the Indians can obtain substantially all of their subsistence catch.

Item No. 41 (p. 161). Ice Harbor lock and dam

Total estimated Federal cost	$95, 899, 000
Allotments to date	1, 132, 600
Additional to complete	94, 766, 400
Approved budget estimate	4, 000, 000
Amount allowed by House	0
Restoration requested	4, 000, 000

EFFECT OF REDUCTION

Would prevent commencement of construction work on the project.

JUSTIFICATION FOR RESTORATION

Ice Harbor Dam would be a large producer of power in the Pacific Northwest and is included in schedule T of the Bonneville Power Administration in its planning for sources of power supply to meet expected power demands. The initial installation is three units of 65,000 kilowatts each, of which two units are scheduled to be in operation in December 1955, based on the budget estimate of $4,000,000 for the fiscal year 1952. Continued power shortages, augmented by the delay in completion of Ice Harbor Dam, would cause a serious hold-back on many defense plants including the Hanford project and its production of material for atomic weapons.

The Assistant Secretary of the Department of the Interior and the Administrator of the Bonneville Power Administration in hearings before the House Subcommittee on Army Civil Functions Appropriations for fiscal year 1952 testified to the urgent need for construction of the project at this time to meet rapidly expanding defense needs in the Hanford and Pasco areas and, included in the record, a letter from the manager of the Hanford plant attesting to the need for a source of power on the Snake River to guarantee continued production of atomic material (p. 750 of House hearings.).

The full $4,000,000 is required for fiscal year 1952 if construction is to be initiated to meet the anticipated demand for power in 1955.

Although the precise effect of the project on the fish runs in the Snake River cannot be predicted at this time, the modern fish passing facilities and the lower Columbia fish hatcheries program are believed to warrant assurance that this valuable natural resource will be preserved without serious detriment.

3 (e) (Transfer to Interior, Fish and Wildlife Service) (p. 166)

The lower Columbia River fisheries development program and investigations of river and harbor projects:

President's budget:	
Oregon	$327, 600
Washington	704, 735
Fish and Wildlife Service	707, 665
Total	1, 740, 000
Amount allowed by House	1, 600, 000
Restoration requested	140, 000

JUSTIFICATION FOR RESTORATION

The lower Columbia River fisheries development program was planned in 1945–47 with the fisheries agencies of the States of Oregon and Washington and has the complete endorsement of all individuals, organizations, and agencies, both public and private, interested in the preservation of the salmon populations of the Columbia River. The Congress, by appropriations of 1949, 1950, and 1951, has approved the program.

The lower Columbia River fisheries program is designed to mitigate, in part, the losses of spawning areas and salmon that will result from the construction of large power, navigation, and flood control dams on the Columbia River and its principal tributaries. By agreement with the agencies constructing these projects it was proposed that sufficient funds be provided for the fisheries program to complete the necessary facilities and have the program in operation by 1957, before further construction of dams in the Columbia River above McNary Dam. Unfortunately funds provided by the Congress have not been adequate to meet the schedule.

If the fisheries program is to be completed, and in actual operation prior to the construction of additional dams, it is essential that the required funds be provided in order that a major portion of the $17,500,000 annual fishery value may be preserved.

EFFECT OF REDUCTION

The reduction of $140,000 in the budget for 1952 as passed by the House will have the effect of drastically reducing or eliminating funds for the following activities essential to the efficient conduct of the program.

	Budget estimate	Reduction
1. Dorena Experimental Hatchery operation	$10,000	$10,000
This unit, in its third and possibly final year of operation, is producing some of the answers to the problems of maintaining fish populations despite the construction of dams. To discontinue this activity would result in inconclusive results.		
2. Cedar Creek Hatchery (Oregon) operation	25,000	25,000
This hatchery is now being constructed by the State of Oregon with Federal funds provided for the program of preservation of the salmon. The unit will be placed in operation in 1952 fiscal year, and will require these funds for operation.		
3. Stream maintenance (Oregon)	10,000	10,000
Federal funds have been provided to clear streams to permit upstream passage of adult salmon to spawning areas. These streams must be inspected periodically and any new log jams, etc., removed to maintain the value of the initial investment.		
4. Stream clearance (Washington)	10,000	10,000
Many potentially good spawning streams tributary to the lower Columbia River in the State of Washington have been cleared to permit adult salmon to ascend to spawning areas. This essential phase of the program should be continued.		
5. Stream gaging:		
Oregon	7,500	7,500
Washington	15,000	15,000
In order to determine the flow characteristics of potential spawning and hatchery streams in the lower Columbia River area many gaging stations have been installed. These stations must be maintained and checked regularly if data of value are to be obtained. The sums listed are minimums required for this purpose.		
6. Surveys for hatcheries and stream improvements (Fish and Wildlife Service)	15,000	15,000
Prior to approval of a site for a hatchery or for funds to carry on stream improvement to permit access of salmon to spawning areas, Fish and Wildlife Service engineers and biologists determine the feasibility of the project. The sum shown is necessary for this purpose which results in economical use of Federal funds in the program.		
7. Administration and inspection (Fish and Wildlife Service)	80,000	47,500
The total sum contained in the budget is necessary for the administration and coordination of the activities of the States of Oregon and Washington, and of the Fish and Wildlife Service, and the inspection of projects under the fisheries program. The Service is responsible for the accounting of Federal funds, inspection of projects being constructed by the States under contract with the Service, and Service personnel must determine the acceptability of all projects proposed under the program. The nominal sum requested must also be available for continuation of administration of activities undertaken with funds appropriated previously, and for coordination of planning with the States for future activities.		
Total	172,500	140,000

Item No. 16 (p. 252). Albeni Falls Dam, Idaho

Total estimated Federal cost	$31,070,000
Allotments to date	2,900,000
Additional to complete	28,170,000
Approved budget estimate	10,000,000
Amount allowed by House	
Restoration requested	10,000,000

EFFECT OF REDUCTION

Preliminary excavation and spillway cofferdams (item 3) constituted the first stage of major construction. It was completed May 25, 1951, with 1951 fiscal year funds. The river has been directed to the north channel by means of rock and earth fill cofferdams across the south and middle channels, and the cofferdams enclosure is unwatered.

The spillway dam together with cofferdams in the north, or powerhouse channel, constitute the second major construction state (item 4). Contractor is now working in the spillway cofferdam enclosure, preparing the rock foundation for concrete. His concrete aggregate and mixing plants are set up to commence placing concrete June 15. The structural steel superstructure that will cross the spillway piers is in process of fabrication. Without 1952 funds, this continuing contract would have to be suspended sometime this fall. Up to that time, it would be possible to carry the spillway construction to the point where the foundation was in, the piers were projecting above water, and the cofferdams were removed. Completion of the project, however, only to this stage would not result in any beneficial operation of the project. Later, when the project was resumed, the gate openings could be bulkheaded at the nose and tail of piers and unwatered one at a time. The gate guides, gates, superstructure, and gantry cranes could then be installed without requiring reconstruction of cofferdams, although at much greater cost than if the work had not been interrupted. Contractor's investment in plant to date is about $500,000 to $600,000.

Fabrication of spillway gates (item 5) now in process, would have to be suspended and termination settlement made. Shop drawings are nearly completed by manufacturer and much of the material is on hand or ordered. If the gate contract were canceled and subsequently construction funds were provided for fiscal year 1953, it would be impossible to readvertise and procure gates in sufficient time to enable storage operation of the project in 1952. In other words the deferrment of the 1952 appropriation by 1 year would result in deferring the use of storage from the project 2 years.

Spillway cranes (item 6) are being built under a separate contract. Most of the component materials have been received or ordered by the manufacturer. Contract would have to be suspended and termination settlement made.

Turbines and generators (items 7 and 8) are under contract but little actual work has been done. Suspension would involve nominal termination settlement. Because of the nature of the site, the river must be diverted through the channel to be occupied by the powerhouse during construction of the spillway and through the spillway during construction of the powerhouse. The delay of 2 years in completing the spillway occasioned by a delay of 1 year in appropriating second year construction funds will follow throughout the entire construction program. Complete installation of turbines and generators, and hence generation of power at the site, would therefore be delayed from April 1955 to April 1957 if fiscal year 1952 appropriations are not restored.

The intake gantry crane (item 16) is included in contract for item 6, spillway cranes, the two cranes being generally of the same design, permitting interchangeability in function.

The stand-by generator (item 17) is included in item 4, spillway contract. This item would be canceled in favor of reserving as much funds for concrete in piers as possible.

Lands and land rights (item 18). This is a tract-by-tract procedure, which would be discontinued with extra cost of demobilizing and later remobilizing the local project office.

Engineering plans and specifications (item 19). Design work in Corps of Engineers offices would be suspended. Architect-engineer contract for design of powerhouse has been in force since mid-January 1951, with about $100,000 earned to June 15, 1951. Suspension of this contract would not result in loss of work accomplished to date but would entail a few thousand dollars loss in settlement.

Cancellation of fiscal year 1952 construction funds would have the following effect on the project.

1. Advantages of construction accomplished to date would be virtually nullified.

2. Storage of 1,140,000 acre-feet would be delayed an additional year beyond the period that appropriation of second year construction funds are delayed. In further explanation: Spillway gates and crane must be ready for operation to regulate the reservoir for storage at the time of spring flood, May to July. They are being built on fiscal year 1951 funds with completion scheduled before the spring flood of 1952. If appropriations are deferred until the fiscal year 1953, the spillway cannot be operated until the spring of 1954. This storage represents direct cash revenue to the Government of $5,000,000.

3. Generation of power at the site (43,600 kilowatts installed capacity) and realization of flood control benefits on Pend Oreille Lake would be delayed in the same manner as usable storage, i. e., the period of fund deferment plus 1 year.

Discontinuance of funds for fiscal year 1952 would halt project short of any utilization, with estimated extra cost to Government as follows:

1. Item 4—Settlement on that part of spillway contract continued	$100,000–$200,000
Items 4 and 5—Settlement on that part of spillway contract stopped	50,000– 100,000
Item 6—Settlement on spillway cranes and other contracts	100,000– 150,000
Extra cost of bulkheading, double handling of cofferdam materials, clean-up, etc., on resuming work	100,000– 150,000
	350,000– 600,000

Say, $450,000.

2. District loss to the Government would consist of 1,140,000 acre-feet usable storage in the reservoir for one more year than funds are deferred. If fiscal-year-1952 funds were restored for fiscal year 1953, loss to the Government is calculated as follows:

	Kilowatt	
Prime power added at Grand Coulee and Bonneville Dams by Albeni Falls storage alone	100,000	
Corresponding system capability at 70 percent low frequency	143,000	
Value at Bonneville $17.50 per kilowatt rate, for 2 years	$5,000,000	
Less cost of $10,000,000 funds for 1952 at 3 percent	300,000	
Subtotal	4,700,000	
Less operating cost during fiscal year 1952	20,000	
Total		$4,680,000

3. Total extra cost and power loss, about $5,130,000, or more than one-half the 1952 requirement.

JUSTIFICATION FOR RESTORATION

1. Continuing contracts now outstanding that must be canceled if funds are withheld for fiscal year 1952 are:

	Scheduled allotments			
	Total	Fiscal year 1951	Fiscal year 1952	Subsequent
Spillway and intake cranes	$417,930	$56,743	$361,187	
Turbines	3,009,760	306,000	1,000,000	$1,703,760
Generators	2,357,596	165,000	438,000	1,754,596
A-E, powerhouse design	375,000	125,000	250,000	
Parts of spillway contract	2,525,000	685,000	1,840,000	
Total	8,685,286	1,337,743	3,889,187	3,458,356

2. Extra direct cost of completing project is conservatively estimated at one-half million dollars. Intangible extra costs will accrue also in disruption of work laid out by Corps of Engineers' offices and contractors. The most serious factor, however, is the loss of the storage in Pend Oreille Lake usable for power at the existing Grand Coulee and Bonneville Federal plants downstream. One hundred and forty-three thousand-kilowatt system capability would be added at these plants by release of Albeni Falls storage through the 1952-53 winter season of low stream flow and high power load. This increased capability can be realized without additional investment in transmission lines, as such lines already are serving the Bonneville and Grand Coulee projects. The Government's added cash revenue from this power at existing rates will return in 4 years the 1952 expenditure required to obtain the storage. Without the 1952 appropriation, the previous $2,900,000 investment will yield nothing.

3. The approved budget estimate of $10,000,000 for fiscal year 1952, if appropriated, would yield, for each $70, 1 kilowatt of power delivered at load centers during the same year for which funds were appropriated. Appropriation of initial (fiscal year 1951) construction funds was based largely on immediate availability of power from storage by the project. Accomplishment of this objective will be nullified by withholding the fiscal year 1952 appropriation. Economically, Albeni Falls project offers the greatest ratio of benefits to cost among all Columbia River projects currently under construction or authorized.

4. The present shortage of power for defense purposes, particularly in the Pacific Northwest, has been emphasized repeatedly by all who are familiar with the situation. The power load per capita in the Northwest has been growing on the average about twice as fast as in other regions of the country, largely as a result of the establishment of new light metals, ferro-alloys, and airplane manufacture in the region to supply the needs of World War II. There has been no noticeable cessation of that growth since the war; and today not a utility in the region, including the Federal system, can offer firm contracts for power to expanding defense industries.

5. Both with respect to economy and to national defense, completion of Albeni Falls project to the point where storage will be available for use in the Columbia River plants beginning in the summer of 1952 offers the most rapid and the cheapest possible power development in the Northwest, and probably in the United States. The approved budget estimate for 1952 will enable completion of the project to the stage of beneficial operation of full storage.

6. The river has been diverted and spillway construction is started. Termination of construction funds at this point would result in a potentially dangerous situation. Without 1952 appropriations the spillway cannot be completed with gates in place for river regulation. The most judicious course of action then becomes a difficult choice. On the one hand, the spillway could be completed as far as possible and the cofferdam removed with the remaining fiscal-year-1951 funds. This would leave an ungated spillway with far greater capacity than the natural channel. In the event of a major flood the vulnerable Cusick Flats leveed agricultural area a few miles downstream would experience much higher river stages and much heavier damages than under natural river conditions. On the other hand, if the cofferdams were left in place, the situation downstream would not be aggravated for floods of the usual order. However, a flood such as that of 1948 would breach the cofferdams, creating a sudden surge with disastrous consequences downstream. Thus, at this critical stage of construction, shutting down the job will leave the Government in an awkward situation with direct responsibility for possible serious flood damages. It is considered essential that funds in the amount of $10,000,000 be appropriated for fiscal year 1952.

Item No. 45 (p. 344). Detroit Reservoir, Oreg.

Total estimated cost	$69,797,000
Allotments to date	36,434,200
Additional to complete	33,362,800
Approved budget estimate	16,978,000
Amount allowed by House	15,000,000
Restoration requested	1,978,000

EFFECT OF REDUCTION

Item 4 (a). Concrete gravity dam, continuing contract 7100

Item 5 (a). Power portion, contract 7100

This is the major contract for the Detroit Dam powerhouse and substructure, and work is proceeding on a continuing contract basis. Work under this contract is approximately 55 percent completed. The contractor is ahead of schedule and expects to complete work under this contract several months earlier than planned. To reduce the amount allocated to this work by $1,000,000 ($750,000 for the dam and $250,000 for the powerhouse) would place the Government in a position of not being able to pay the contractor the amount he earns, or will require a slow-down of construction with consequent delay in completion. Estimated Government costs in connection with this contract are $50,000 per month, and any delay in completion of the contract will increase the total cost by that amount.

Item 5 (b). Powerhouse structure

Plans and specifications for the powerhouse superstructure have been completed, and the work was advertised on May 24, 1951. Bids are scheduled to be opened on June 29, 1951. Work will be performed under a continuing contract. The proposed construction schedule, to meet power commitments, will require an allocation of $1,257,000 for the fiscal year 1952. A reduction of $400,000 in this item will result in slowing down this contract to the extent that the powerhouse will not be available by the dates that installation of power equipment now under contract is scheduled.

Item 5 (e). Generators

The two 55,555-kilovolt-ampere generators and appurtenances for the Detroit project are being manufactured under a continuing contract. The contract is scheduled for completion on February 1, 1953. If the amount allocated to this work is reduced by $260,000, manufacture and delivery of the generators will be delayed, and will throw the schedule of installation of turbines and other power equipment out of scheduled sequence.

Item 9 (d). Big Cliff Dam—Construction

This reregulating dam is an integral part of the Detroit project and is needed to regulate surges in the river caused by the operation of power plant at Detroit. Plans and specifications on this dam and powerhouse have been completed, and the work was advertised on May 24, 1951. Bids are scheduled to be opened on June 29, 1951. The construction schedule on this project is very tight, and the proposed allocation in the amount of $1,029,000 is necessary to meet the construction program contemplated. A reduction of $318,000 from this amount will undoubtedly slow up construction. If this portion of the project is delayed, power delivery from Big Cliff generator cannot be on the line on the scheduled date, and the generators at Detroit Dam cannot be used for peak loading on the transmission system, for which type of use it is intended.

In memorandum from the Office, Chief of Engineers, to the Defense Electric Power Administration, dated May 28, 1951, subject: Construction Schedules at Detroit Project, commitments were made to provide delivery of power as follows: Detroit, first unit, February 1, 1953; Detroit, second unit, July 1, 1953; Big Cliff unit, December 1, 1953.

Construction of the Detroit project is well along, and all plans and efforts have been centered toward meeting these power commitments. There are approximately 35 contracts in force and more than 100 items of work which have been integrated and coordinated in order to meet the power delivery dates indicated above. The reduction of $1,978,000 in appropriations in a project as far along as this one will seriously hamper the progress of the work as planned. Such a revocation will not only delay power and flood-control benefits from the project but will not be to the best interests of the Government if it should fail to meet its contract and power obligations.

JUSTIFICATION FOR RESTORATION

The generating capacity of the power plants involved in this project is 131,110 kilovolt-amperes. This is an important peaking plant in the Northwest power pool, and all efforts have been made during the past few years to meet the scheduled dates for power in the interest of national defense. A cut of $1,978,000

in the appropriations and the resulting delays is not considered to be to the best interests of the Government. Restoration of these funds is essential if this important power is to be delivered as scheduled.

Item No. 46 (p. 349). Lookout Point Reservoir, Oreg.

Total estimated cost	$88, 230, 000
Allotments to date	34, 009, 700
Additional to complete	54, 220, 300
Approved budget estimate	16, 633, 000
Amount allowed by House	15, 000, 000
Restoration requested	1, 633, 000

EFFECT OF REDUCTION

Item 2. Lands and damages

The elimination of $900,000 prevents the purchase of lands for Dexter Dam.

Item 7. Dexter relocations

The elimination of $200,000 prevents the initiation of construction for the relocation of Oregon State Highway No. 58 and county roads affected by the Dexter Reservoir.

Item 10(c). Dexter Dam and appurtenances

The elimination of $500,000 prevents the initiation of construction for Dexter Dam and appurtenances.

Item 11(a). Construction of fish facilities

The reduction of $33,000 will delay the completion of salmon egg-taking station and of salmon hatchery.

The reduction of $1,633,000 from the fiscal year 1952 budget will postpone the completion of Dexter Dam 1 year. This dam serves as a reregulating reservoir for Lookout Point Dam and firm power from this project has been committed to the Bonneville Power Administration as of December 1954. The completion of Dexter Dam is necessary to control river surges caused by peaking load demand at Lookout Point powershouse since that powerhouse will operate primarily as a peaking load plant. The elimination of the entire appropriation in the fiscal year 1952 budget for the start of construction on Dexter Dam will result in a loss of use of the Lookout Point powerhouse for its intended purpose for a year, or will necessitate such an expedited construction schedule, the cost of construction will be materially increased.

JUSTIFICATION FOR RESTORATION

The approved budget estimate is the minimum amount of funds necessary to carry on the work to provide flood control and power in accordance with the schedule of power commitment to the B. P. A. and the Defense Electric Power Commission in December of 1954. Dexter Dam is interrelated with the Lookout Point Project as a reregulating reservoir for river surges caused by Lookout Point power demand at peaking operations.

There is a serious power shortage in the Pacific Northwest and maximum use of power generating facilities at Lookout Point is imperative to meet the defense needs of the area. Without reregulation of flows, provided by Dexter Dam, it would be impossible to operate the Lookout Point plant to provide needed peaking capacity. Lack of the Dexter reregulating dam will result in a maximum loss of annual power benefits of about $810,000 for as long as the emergency exists. Of this total about $270,000 represents the loss of generating capacity at Dexter and about $540,000 represents the loss in peaking capacity at Lookout Point because of operation at 80 percent load factor instead of the 40 percent load factor for which the plant is planned. Operation of Lookout Point in this manner would preclude full utilization for flood control, the prime function of the Middle Fork Willamette system of reservoirs. Also, a delay in construction of Dexter Dam until after the construction period of the Lookout Point Dam would result in a greater over-all cost, because the Dexter Dam is now planned not only as the reregulating dam but also as the upstream barrier for the salmon egg collecting station; consequently, any delay in the construction of this dam will require the construction of a temporary salmon egg collecting station.

The cost of lands and damages in connection with Dexter Dam is rapidly rising due to the fact that the reservoir area is being developed by the population influx

in connection with construction of Lookout Point Dam. Acquisition costs have risen nearly $900,000 in the past 2 years. Residential and business construction is continuing at a rate that will probably add several hundred thousand dollars more to acquisition costs within the next year if the land is not acquired.

UNITED STATES DEPARTMENT OF COMMERCE,
WEATHER BUREAU,
Washington, June 27, 1951.

Maj. Gen. LEWIS A. PICK,
Chief of Engineers, United States Army,
Washington 25, D. C.

DEAR SIR: This will acknowledge your letter dated June 18, 1951, reporting the action by the House of Representatives in connection with your annual appropriation bill which will have the effect of eliminating the transfer of working funds for maintenance of the hydroclimatic network, storm studies, and other activities maintained in cooperation with your agency.

This is to advise you that the Weather Bureau estimates and prospective estimates will not permit us to support any part of the activity hitherto financed by funds transferred from your agency. We realize that the effect of terminating these activities will be serious with respect to future requirements for engineering design. We shall be glad to support your representations for restoration of necessary amounts in any feasible way. Please advise if there is anything that we can do.

Sincerely yours,

F. W. REICHELDERFER,
Chief of the Bureau.

ATTACHMENT A. NATURE AND VALUE OF HYDROCLIMATIC NETWORK AND HYDROMETEOROLOGICAL STUDIES

The Weather Bureau currently publishes records from nearly 3,300 stations equipped with recording precipitation gages. Of this total, 2,338 stations or 70 percent (having an average record of 10 years) are operated on funds transferred by the Corps of Engineers. Published hourly rainfall data are widely used by numerous Federal, State, and local agencies and by private industry in the design of hydraulic structures such as bridges, culverts, storm sewers, airport drainage facilities, dams, and canals. The importance of maintaining continuity in the collection of basic hydrologic data was emphasized in the Report of the President's Water Resources Policy Commission as follows:

"Continuity in collection of basic data must be maintained for those items which fluctuate widely, so that greater dependence can be placed upon analysis and use of such data. Furthermore, this continuity should prevail regardless of changes in location and magnitude of current construction works. An adequate national program for collection of data should be supported without interruption."

The Hydrometeorological section of the Weather Bureau has been supported by funds transferred from the Corps of Engineers for the past 14 years. This section analyzes the meteorology of maximum storms of record and prepares estimates of maximum possible precipitation over project areas as requested by the Corps of Engineers. Although these studies have been prepared primarily for the Corps of Engineers, records show that the work performed by the section has been of value to many other Federal, State, and local agencies and to consulting engineers and meteorologists. During the past year special requests have been received for these hydrometeorological reports from various public libraries, insurance companies, private utilities, consulting engineers, Federal Power Commission, the International Boundary and Water Commission (United States-Mexico), and from the countries of Australia, Canada, French Sudan, and Pakistan.

DEPARTMENT OF COMMERCE,
BUREAU OF PUBLIC ROADS,
Washington 25, June 21, 1951.

Maj. Gen. LEWIS A. PICK,
Chief of Engineers, Department of the Army,
Washington 25, D. C.

DEAR GENERAL PICK: We have just been informed by Mr. Snyder of your office that the "Civil Functions Appropriation Act, 1952," passed by the House of Representatives on June 13, 1951, makes no provision for funds to be trans-

ferred to the Weather Bureau for continuance of the hydroclimatic network and related purposes. In the past this transfer of funds has been in the amount of $600,000 annually. We are further advised by the Weather Bureau that unless this sum is made available for the fiscal year 1952 it will be necessary to discontinue operation of about 2,300 recording rain gages as well as to discontinue the processing of data previously obtained from those gages and not yet processed. There would remain only the first order weather stations including about 900 recording rain gages.

The Bureau of Public Roads and the State highway departments are vitally interested in the continued operation of the hydroclimatic network. The highway departments, Federal, State and local, expended slightly over $2 billion on construction of highways during the calendar year 1950. Of this amount, approximately $500 million is estimated to have been expended for the construction of bridges and culverts. The hydraulic design of these structures depends on being able to estimate the magnitude of the major floods that may reasonably be expected to occur at each site. Partly because of the rainfall data now becoming available from the hydroclimatic network, in addition to the first order weather stations, highway engineers have been able to greatly improve the reliability of their estimates of probable flood flows.

The streamflow records obtained by the United States Geological Survey have an even more direct application to our needs for data on probable floods. Such records, however, are obtained on only a comparatively small percentage of all of the streams in the United States. Where the streamflow data are not available we find it necessary to estimate floods by making use of rainfall data. In many sections of the country the average intensity of rainfall varies greatly over comparatively short distances. Even with the hydroclimatic network provided by the funds heretofore transferred to the Weather Bureau by the Corps of Engineers, reliable information on local intensities of rainfall is often lacking at many sites where highway engineers must build drainage structures.

In the absence of adequate basic data from which to estimate bridge and culvert waterways the engineers will be inclined to be conservative by providing a structure which will be ample size. This factor of ignorance is probably causing an appreciable increment in the cost of drainage structures previously cited. In certain areas the data on either rainfall or runoff may be so limited that structures are occasionally destroyed by floods much greater than anticipated by the design engineer. The hydrologic techniques now developed enable such losses to be greatly reduced but this can be accomplished only if the basic data on rainfall and runoff are available.

We are becoming increasingly aware of the importance of continuity and length-of-record of both rainfall and runoff records. Continuity is important because at a given site where a rainfall gage may have been in operation for 10 years no unusual storms may occur during that time, but in the very next year it is entirely possible that a major storm may happen to center at that location. Should the gage be inoperative, the record of that major storm would have been lost and an erroneous conclusion might be drawn as to the rainfall intensities for that station. Similarly we find that the results of statistical analyses of both rainfall and runoff records may contain a large probable error unless the length of record is at least 15, and preferably 20, years in length. This is particularly true where we are interested in getting a reliable estimate of the flood which has a probable recurrence interval of once in 100 years.

In conclusion, it is our considered opinion that substantial economies in the construction and maintenance of highway drainage structures can be brought about by the application of basic data on rainfall such as that provided by the Hydroclimatic Network. This use of the data, while important to highway engineers, is in addition to the value of the data to the Corps of Engineers in the planning of major flood control works. We hope that this expression of our interest in the matter of continuance of rainfall records may in some measure assist you in obtaining a reinstatement in the appropriation bill of the funds necessary to continue this work at the present level of operation.

Very truly yours,

THOS. MACDONALD,
Commissioner of Public Roads.

DEPARTMENT OF COMMERCE,
BUREAU OF PUBLIC ROADS,
Washington 25, D. C., July 6, 1951.

Maj. Gen. LEWIS A. PICK,
Chief of Engineers, Department of the Army,
Washington 25, D. C.

Dear GENERAL PICK: We are concerned about the prospect that stream flow gaging at some 500 stations may be discontinued as a result of the elimination from the Civil Functions Appropriation Act, 1952, of the item covering the transfer of $400,000 to the United States Geological Survey.

Engineers of this Bureau and of many of the State Highway Departments currently make use of records of these and other stream flow gaging stations for determining:

1. The probable stage of flood peaks.
2. The probable frequency of occurrence of such stages.
3. The magnitude of the corresponding flood discharges.

These data are of great value in designing bridge waterways that will be adequate to discharge expected floods without being so large as to be wasteful of highway funds. We cannot afford, nor is it necessary under normal circumstances, to construct bridges and roadways which will be safe against overtopping by the maximum possible flood. Rather, in trying to make the highway dollar go as far as possible we deliberately plan that a given bridge waterway will pass all floods up to a certain size. Greater floods will then go over the roadway and will temporarily disrupt traffic, but the highway is usually passable just as soon as the flood recedes because it is built to withstand termpoary overflow without serious damage. On important interstate and strategic routes the occurrence of overflow may be limited to once in 100 years while on low-traffic secondary routes overflow may be permitted more often.

The only means we have of intelligently predicting the probable size of the flood to be expected on the average of once in any given number of years is statistical analysis of stream-flow records.

We know from experience that hearsay evidence from local inhabitants is not dependable and furthermore gives no indication of frequency. Variation in stream flow is affected by so many as yet undefined factors that generalized flood-flow formulas are of questionable value.

In many areas, particularly west of the Mississippi, stream-gaging stations are so few in number that the degree of reliability of estimates of flood magnitudes is very low. The result is that in such areas only by chance can the highway engineer hit upon the economic optimum size of waterway. Occasionally he underestimates the size of the probable flood and a bridge will be destroyed. We are then frequently called on to finance reconstruction of such bridges, drawing on a small emergency relief fund provided under a section of the Federal Aid Highway Act.

We have stated these facts in the hope that this indication of our vital interest in the continuation of the collection of basic data on stream flow from all existing stations may be provided for by appropriate legislation. As you are aware, the Bureau of Public Roads took a keen interest in the deliberations of the President's Water Resources Policy Commission and heartily endorses the recommendations of that Commission with respect to the collection of basic hydrologic data on rainfall and stream flow.

Very truly yours,

THOS. H. MACDONALD,
Commissioner of Public Roads.

UNITED STATES DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington 25, D. C., June 28, 1951.

Maj. Gen. LEWIS A. PICK,
Chief of Engineers, Department of the Army,
Washington 25, D. C.

MY DEAR GENERAL PICK: The Department of the Interior is gravely concerned over the action taken by the House Appropriations Committee and the House of Representatives in connection with the Corps of Engineers funds for preliminary examination surveys and study programs under flood control general.

This matter is of grave interest to the agencies of this Department because the elimination of this item would exclude some 500 stream-gaging stations throughout the United States. The Bureau of Reclamation uses data from many of these 500 stream-gaging stations in its project planning and operation and maintenance work.

It is my understanding that it also included the amount of $600,000 for transfers to the United States Weather Bureau, which normally provides funds for the hydro-climatic network which your agency has maintained in cooperation with the Weather Bureau for the past 13 years. We are particularly concerned about this item because it will eliminate 70 percent of all recording rain gages in the United States. Since 52 percent of these gages are situated in the western United States they are of vital concern to the Bureau of Reclamation in its spillway design flood work. They are also necessary for the effective operation of many of the Bureau of Reclamation's reservoirs. These recording rain gages are also utilized by the Geological Survey in performing hydrologic studies aimed at the over-all appraisal of the water resources of the United States. They are vitally needed by our Bonneville Power Administration and our other power-producing centers in enabling us to operate these reservoirs at maximum efficiency, thereby providing the maximum amounts of hydroelectric power which is so badly needed for defense purposes.

The stream-gaging stations which stand to be eliminated, and the 3,900 automatic recording rain gages are vitally affecting operations of our conservation bureaus, such as the Fish and Wildlife Service and the Bureau of Land Management. It is essential that the Fish and Wildlife Service be provided with stream-flow data from some of these installations in order to properly appraise minimum water requirements for the conservation of fish and wildlife. The Bureau of Land Management utilizes data from some of these stream-gaging stations and many of the recording rain gages in its range management and land planning programs.

In summary, I reiterate that the interests of the Department in the field of water resources will be greatly impaired unless the funds so badly needed for this vital work can be restored.

Sincerely yours,

WILLIAM E. WARNE,
Secretary of the Interior.

UNITED STATES DEPARTMENT OF THE INTERIOR,
GEOLOGICAL SURVEY,
Washington, 25, D. C.

CHIEF OF ENGINEERS,
Department of the Army,
Washington 25, D. C.

DEAR SIR: Reference is made to the recent action of the House on the 1952 civil functions appropriation bill (Corps of Engineers), and, in particular, to the item covering stream-gaging programs under "Flood Control General" in the President's budget.

It is my understanding that this item in the amount of $400,000 has been deleted by the House. It is also my understanding that the funds under this item are intended for transfer to the Geological Survey to obtain records at gaging stations selected throughout the United States to meet the requirements of your agency. This procedure, which has been followed for several years, is designed to provide flow records which are needed by the Corps of Engineers in its river survey and study programs, and notably in the actual operation of flood-control projects.

The elimination of the funds involved in this item would necessitate the discontinuance of approximately 500 gaging stations now being operated by the Geological Survey in consideration of their special importance to flood-control operations and programs of the Corps of Engineers. The effects on flood forecasting and flow routing activities would be quite demoralizing. The termination of flow records at places where studies are being made, or may be made, of water development projects would run counter to the policy of collecting ample basic data prior to the planning, construction, and operation of such projects, as repeatedly supported and emphasized in the reports of the Hoover Commission and the Presudent's Water Policy Commission. As you know, many years of stream-flow records are required before the behavior of a stream with respect to floods and droughts can be sufficiently known for planning sound development.

A number of Federal and State agencies have expressed concern to the Geological Survey over the possible curtailment of the basic data program as involved in the elimination of the item to which reference has been made. I am sure you also recognize that the deletion of this item is a most serious matter. It would be especially unfortunate if this large group of important gaging stations were discontinued or even temporarily dropped because the break in those records would result in an irreparable loss. I feel it only proper that the Congress be made aware of the serious implications of such curtailment so that it will be in the best possible position to consider whether it would be desirable to restore this item in the appropriations for the Corps of Engineers, when final action is taken on your appropriation bill.

The threat involved in the elimination of this transfer is even greater in the prospect that other stream gaging funds required by the Survey will be cut or limited to a degree that will permit no adjustment of its regular stream-gaging program to cover stations heretofore supported by such transfer.

Very truly yours,

WM. E. WRATHER, *Director.*

JUSTIFICATION FOR RESTORATION, FLOOD CONTROL, GENERAL

Item 2 (a) (p. 429). Preliminary examinations, surveys, and miscellaneous study programs

Approved budget estimate	$4,500,000
Amount allowed by House	
Restoration requested	4,500,000

The funds originally requested in the budget for the fiscal year 1952 for preliminary examinations, surveys, and contingencies for flood control were based on the minimum necessary for economical progress on a drastically curtailed program of investigations authorized by Congress.

Preliminary examinations and surveys

The budget estimate provides $3,600,000 for carrying on this important activity. The large number of studies authorized by various flood control acts and by resolutions of the congressional Committees on Public Works has been under continuing review in accordance with the directive of the President that those projects and investigations in the civil public works program which do not directly contribute to defense or to civilian requirements essential to the changed international situation be deferred, curtailed, or slowed down. Application of these criteria resulted in suspension or postponement of work on many studies and continuance of work in fiscal year 1951 only on those satisfying the criteria. Accordingly, the fiscal year 1952 program would provide only for continuation and completion of studies meeting the criteria and would not include initiation of any new studies unless directly concerned with defense or allied civilian activities. It should be noted that practicable measures of flood control and related use of water resources, including water supply, power development, and pollution abatement require time for planning and analysis as well as for the legal procedures of authorization. The investigations proposed in the fiscal year 1952 Budget include study of flood protection for defense industries, arteries of traffic and workers' homes, protection of and reduction of flooding on important agricultural and food-producing areas, hydroelectric power development for the needs of defense industry, provision of industrial water supply for processing, cooling, and steam purposes, regulation of stream flow and improvement of water quality. The elimination made by the House of Representatives in 1952 appropriations for these studies by the Corps of Engineers will seriously affect economical investigation and early provision, where warranted, of flood control and water use projects essential to defense and the national security.

An abrupt termination of the survey program frequently in the middle of detailed studies of complex nature must inevitably result in a material increase in the ultimate cost of these investigations when resumed at some subsequent time with entirely new and untrained personnel.

In particular it may be noted that the Army engineers along with other Federal agencies are now actively engaged in cooperative surveys and investigations in the Arkansas-Red-White River Basins and in the New England area to develop the best plans for water resources developments in those regions. The House of Representatives has already passed appropriation bills providing fiscal year

1952 funds for the Departments of Agriculture and Interior to participate in these important investigations, yet the elimination of these funds would eliminate participation by the Army engineers—the agency designated as Chairman of the Arkansas-Red-White River Basin survey and the New England area survey.

Storm studies and general hydrologic investigations

The budget estimate provides $200,000 for this activity. Investigations of major storms in all regions of the country and a study of relations between observed rainfall in these storms, their meteorologic causes, and the resultant flood run-off, are essential in the development of criteria on which to base the design and operation of flood control projects. The criteria derived from these studies are used in connection with determination of economic justifications, capacity of flood control works, required provisions for security against failure of the project during flood emergencies, proper design for optimun performance and economy of construction, and operation procedures after completion of construction.

The comprehensive storm study program and general hydrologic investigations are conducted by the Corps of Engineers. The Weather Bureau cooperates in the program to the extent of reviewing meteorologic aspects of the storm studies and preparing special estimates of maximum possible precipitation. Studies of this nature completed to date have resulted in accumulation of storm data and in the development of up-to-date hydrologic techniques that provide more reliable determinations of basic flood criteria.

Elimination of this program would require accomplishment of essentially the same investigations in connection with the design and operation of projects on a piecemeal and inefficient basis.

General flood investigations

The budget estimate provides $100,000 for this activity. These investigations include the collection of current flood data pertaining to floods on streams for which formal reports have not been specifically directed by Congress. The data collected in these investigations consist of precipitation data, flood damage data, record of flood flows and heights, and similar data of hydrologic nature. It is imperative that these data be collected during and immediately following the occurrence of a serious flood. Extensive use is made of the information in connection with hydrologic features of all reports prepared in subsequent years following occurrence of the flood. This work also includes the preparation of reconnaissance reports on flood conditions for other Federal agencies and for Members of Congress.

Elimination of funds for this work would, in addition to destroying the opportunity to collect and use the data in connection with the planning, design, and operation of authorized projects, place the Corps of Engineers in one of two untenable positions: (1) of being unable to furnish emergency flood information to flood fighting parties, to other Federal agencies, and to Members of Congress, or (2) of being forced to collect the data with facilities not intended for that prupose.

Transfer to Weather Bureau for hydrometeorological studies and hydrologic network of precipitation stations:

The budget estimate provides $600,000 for this activity.

Hydrologic network of precipitation stations;

The hydroclimatic network of precipitation stations was established during the 1940 fiscal year by the Weather Bureau in cooperation with the Corps of Engineers as the result of specific action of Congress (sec. 8 of 1938 Flood Control Act). The objective of this project has been to supplement the network of meteorological stations with additional precipitation stations, particularly the continuous recording type of station, so as to provide the Corps of Engineers with a density and type of record which would be adequate for present and future development of water resources. While required and fully justified for flood-control activities, the program is also partially satisfying a long existent deficiency in recording precipitation data. These data for which there are no substitutes are used by all Federal, State, and other agencies dealing with water resources. As with all hydrologic data, the value of the records is largely dependent upon uninterrupted operation over a long period of years in order that a maximum range of conditions may be observed.

Hydrometeorological studies

A special hydrometeorological section was established in the United States Weather Bureau in 1938 with funds made available by the Corps of Engineers. In addition to reviewing the meteorological aspects of the storm study data utilized by the Corps of Engineers in planning, design, and operation of water-control structures, the section has developed the new and unique science of estimating maximum possible precipitation. These studies provide the basic meteorological data needed to insure the adequacy of large structures whose failure would result in disastrous loss of life and property.

The following steps will need to be taken as the result of elimination of the proposed transfer to the United States Weather Bureau of $600,000, flood control, general fund under the item, "Surveys, investigations and other study programs":

1. About 2,500 precipitation stations will have to be closed. This includes over 70 percent of all existing recording precipitation stations in the country.
2. Local observers who receive little or no compensation and serve primarily through a sense of public duty will have to be dropped from the service.
3. Equipment will have to be salvaged or left in place to deteriorate.
4. The staff of highly specialized meteorologists in the hydrometeorological service will have to be dispersed.

The results of the necessary action will be:

1. The planning, design, and operation of structures and many other programs in the field of development of water resources will suffer serious damage and result in the expenditure of many times the savings made through expedient and makeshift measures adopted as substitutes.
2. Closure of the recording precipitation stations will be permanently recorded in the record of collection of hydrologic data as a disaster for all future workers in the water resource field to observe and deplore.
3. In addition to the loss of record from the stations closed, maintenance and collection and processing of records from another 1,500 stations (both recording and nonrecording) will be adversely affected through loss of partial support from the hydroclimatic program.
4. Good observers are difficult to obtain at the low compensation available and closure of the stations would create a situation that would make reestablishment of the network difficult and expensive.
5. Salvage of the rain-gage equipment would be expensive and might result in a net loss. A capital loss of about $250,000 could be expected.
6. Loss of the services of the hydrometeorological section eventually would require accomplishment of the same program by other means if construction and operation of water-control projects are to continue. Dispersal of the highly specialized staff would result in the loss of special training and experience gained during the past 13 years and require an expensive period of redevelopment if the program were reestablished at a future date. Results of the studies of the program which have been beneficial to and opened up other fields in meteorology and hydrology would no longer be available.

It is therefore requested that the full budget estimate of $4,500,000 be restored.

Item No. 2 (b) (p. 429). Stream gaging program

Approved budget estimate	$400,000
Amount allowed by House	----------
Restoration requested	400,000

In the planning, design, and operation of projects for flood control, navigation, hydroelectric power development, and other water uses, continuous records of stream-flow measurements over a long period of years are of prime importance. These stream-flow records provide a measure of the water resources available for useful purposes, and the magnitude of floods to be controlled. The value of these stream-discharge records is largely dependent upon uninterrupted station operation over a long period of years in which a maximum range of conditions from minimum to maximum rates may be observed. As stated by the President's Water Resources Policy Commission "hydrologic and sedimentation elements fluctuate so widely over the years that records over short periods are inadequate and often misleading. For this reason a national network of stations is essential and should be maintained continuously for most economical use of public funds and safety in design of structures."

The United States Geological Survey, under its normal functions, has maintained a primary network of stream-gaging stations that was planned to meet the general need of the public insofar as available funds permitted. Inasmuch as this basic network of stream-gaging stations was not sufficiently dense in all regions to provide suitable records of stream flow for use in the planning, design, and operation of specific river improvement projects for which the Department of the Army is responsible, funds have been transferred to the Geological Survey in recent years to cover in part the cost of installing and operating specific stream-gaging stations necessary for such purposes.

The following steps will need to be taken as the result of elimination of the proposed transfer to the United States Geological Survey of $400,000, "Flood control, general" fund under the item "Surveys, investigations, and other study programs":

(1) About 500 stream-gaging station will have to be closed. This number represents about 10 percent of the total in operation by the United States Geological Survey.

(2) Local observers who receive very small compensation and serve primarily in the interest of public service would have to be discharged.

(3) Salvage movable equipment.

The results of closing the necessary stations will be—

(1) Continuity of stream-flow data will be destroyed. Records will be lost which no expenditure of time or money can replace. Basic hydrologic studies required in comprehensive river-basin-development programs will suffer with eventual expenditure for computations and losses through poor design exceeding many times the amount saved through closure of the stations.

(2) A capital investment of about 2,000,000 in nonsalvagable structures would be lost within a few years.

Restoration of the $400,000 recommended in the President's budget is requested.

Item 2 (c) (p. 429). Fish and wildlife studies

Approved budget estimate	$75,000
Amount allowed by House	-------
Restoration requested	75,000

It is requested that funds in the amount of $75,000 proposed for allocation to the Fish and Wildlife Service under the item "Flood control, general" be restored. These funds are desired for making detailed investigations and reports on a number of flood-control projects for which funds are allowed under H. R. 4386, passed by the House of Representatives, June 13, 1951.

By law (60 Stat. 1080), the Fish and Wildlife Service is responsible for advising the Corps of Engineers on the beneficial or detrimental effects of flood-control developments upon fishery and wildlife resources in the United States and Alaska. Findings and recommendations of the Service are made to the corps when appropriate modifications of plans are deemed necessary to maintain or improve these resources.

As pointed out in the hearings before the subcommittee of the House Committee on Appropriations on Army Civil Functions (pt. 1, p. 703), preliminary investigations of corps projects are conducted with funds appropriated directly to the Service. For the past several years, funds for the conducting of detailed examinations and the making of specific recommendations on corps projects (exclusive of those located in the Missouri River Basin) have been obtained by transfer from the Corps of Engineers. The House committee report (No. 544) on the civil functions appropriations bill, H. R. 3486, lists 48 flood-control projects by name (exclusive of 6 in the Missouri River Basin) for which funds for construction and final project planning were allowed.

About half of these projects consist of flood-control reservoirs on which detailed reports of the Fish and Wildlife Service have not yet been prepared. A list of these is attached. Some reservoirs and levees have not yet been examined by the Service at any stage of planning or construction. There is still opportunity to make recommendations in connection with operation and development of many of these projects in the interest of fish and wildlife conservation and enhancement. The extensive central and southern Florida flood-control project is a good example of a development offering such opportunities.

Projects on which detailed reports should be prepared by Fish and Wildlife Service

RESERVOIR PROJECTS

Arkansas: Bull Shoals
California:
- Cherry Valley
- Folsom
- Isabella
- San Antonio
- Whittier Narrows

Connecticut: Mansfield Hollow
Florida: Central and southern Florida
Idaho: Lucky Peak
Illinois: Farm Creek (channel work)
Kentucky: Wolf Creek
New York: Mount Morris
Oklahoma:
- Fort Gibson
- Tenkiller Ferry

Oregon:
- Detroit
- Lookout Point

RESERVOIR PROJECTS—continued

Tennessee: Dale Hollow
Texas:
- Belton
- Garza-Little Elm
- Lavon
- San Angelo
- Texarkana

LOCAL FLOOD PROTECTION PROJECTS

Illinois: East St. Louis and vicinity
Indiana: New Albany
Kentucky: Ashland
Oregon: Willamette River

Item 3 (a). River and harbor studies

The program proposed by the Corps of Engineers for river and harbor examinations and surveys for the fiscal year 1952 was drastically curtailed in accordance with the President's directive for deferral, postponement, or slowing down of civil-public-works projects and investigations which do not directly affect defense or civilian activities relating to defense. Initiation of no new studies was proposed for the fiscal year 1952 over 1951 except for such studies as may be essential to defense requirements. The elimination of funds for such navigation reports in 1952 would prevent further investigation of and reports to Congress on congressionally authorized studies. Such investigations are necessary to meet the changing needs of commerce in order that adequate provision may be made for deep-draft coastal and Great Lakes river and harbor improvements for use by oil tankers, ore carriers of advanced design, and other cargo vessels carrying defense materials to existing and new industries. The continuation of studies on inland waterways are necessary for the movement of essential materials and commodities and to relieve other congested transportation lines. Studies of small-craft harbor facilities affecting national defense installations and the production of seafood for the civilian population should also be carried to completion. These studies should continue in order that these various facilities may be properly analyzed, planned and processed through the various authorizations steps, if found warranted, and still provide their proper contributions to the defense program. An abrupt termination of the survey program frequently in the middle of detailed studies of complex nature must inevitably result in a material increase in the ultimate cost of these investigations when resumed at some subsequent time with entirely new personnel.

The funds requested for river and harbor examinations and surveys in the approved budget for 1952 should be restored in order that this work may proceed at the reduced level approved by the Bureau of the Budget.

Item 3 (b). Beach erosion studies

The budget estimate for this item of current expense provides for general investigations only. No funds were recommended for cooperative studies. The general investigations now under way, when completed, will give us an over-all understanding of the movement of sands and other beach material. This information is required for the proper design of jetties, inlets, and beach-protective measures and incidentally will permit a material reduction in the cost of subsequent cooperative studies. The House committee recognized the importance of this activity by not effecting any reduction in the budget estimate and so stated on the floor of the House, in connection with the debate on this bill.

The full budget estimate of $150,000 is required to carry on this important activity during fiscal year 1952.

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Item 3 (c). Surveys of northern and northwestern lakes

In the general activity breakdown under the appropriation title, "Rivers and Harbors," the item for "Surveys of northern and northwestern lakes" is shown under the classification, "Examinations and surveys." The House committee report stated that the estimate for rivers and harbors was reduced $1,500,000 by eliminating preliminary examinations and surveys. The item of $1,500,000 includes $300,000 for the surveys of northern and northwestern lakes. In this connection, it should be pointed out that the functions of the United States Lake Survey Office are entirely different from the functions performed by the other engineer districts under the title, "Examinations and surveys." The work performed under the latter title provides for investigations of new projects; whereas the Lake Survey civil functions are operational and essential to the continuance of shipping in the long established waterways of the Great Lakes area. In recommending full restoration of the $300,000 requested in the budget estimate, the following explanation of the important functions of the Lake Survey Office are furnished for the consideration of your committee.

(*a*) The work of the Lake Survey is generally similar to the Coast and Geodetic Survey in coastal waters. The Lake Survey conducts the necessary hydrographic and topographic surveys, compiles, reproduces, and publishes 143 charts which are essential to navigation on the Great Lakes system. The importance of these charts are illustrated by the following:

(1) The Great Lakes ore carriers and other commercial vessels carrying defense material, and Coast Guard and other Government craft cannot safely operate without up-to-date navigation charts.

(2) The charts are used for training purposes by the Coast Guard, Naval Reserve, and various Army units.

(3) Approximately 50,000 charts are sold annually and an additional 10,000 are issued for official use.

(4) To be effective, charts must be revised periodically by actual field checking, and must be hand corrected for changes in lights and buoys to date of sale.

(*b*) The Great Lakes Pilot, a book of more than 500 pages is published annually to supply navigation information which cannot be shown ion the charts The importance of this book is illustrated by the following:

(1) The Pilot book is essential for safe navigation of vessels engaged in transporting iron ore and other defense materials.

(2) Seven monthly supplements of the Pilot are issued during the period May to November, the navigation season, to keep the book up to date.

(3) The importance of the publication is illustrated by the fact that 1,600 copies of the Pilot are sold annually and 500 additional copies are issued for official use

(*c*) Water level records are obtained for all of the Great Lakes and connecting waters. The importance of this activity is illustrated by the following:

(1) Each inch of draft is important to the ore carriers in hauling the vital material to the lower lakes. Pertinent water-level values are furnished the Lake Carriers Association twice monthly to enable them to adjust load limits.

(2) In one area the knowledge of existing water levels is so vital that readings from a Lake Survey gage are broadcast by the Coast Guard to approaching vessels at regular intervals throughout the day.

(3) A monthly report of water levels and forecast of future levels is mailed to approximately 500 individuals and organizations, such as public utilities and water-front shipping interests.

(4) A hydrograph showing the monthly mean-water levels of all the lakes from 1860 to date is published to supply information on seasonal and long-range fluctuations. This information is particularly valuable in the building of wharves, intakes, and other marine structures.

(5) Water levels of Lake Superior are supplied each 10 days to the International Control Board for Lake Superior to be used in connection with regulation of that lake. The level of the lake could not be satisfactorily controlled without this information.

Discontinuance of operations of the United States Lake Survey even for a short period of time would be disastrous since the shipment over the Great Lakes of iron ore, oil, coal, grain, and other commodities essential to national defense and to the national economy will become hazardous and impractical. The proposed appropriation of $300,000 requested by the President for continuing the important functions of the United States Lake Survey is approximately 30 percent lower than last year's appropriation and represents the bare minimum required to carry on this work which is essential for national defense and the national economy. It is, therefore, considered imperative that the full amount be restored.

Item 3 (d). Stream-gaging studies

In applying the House reduction in current expenses no change was made in this item. A reduction in this item would necessitate an unprecedented and abrupt curtailment in the long-established and extremely valuable program for the collection of basic hydrologic data. The value of hydrologic data is largely dependent upon uninterrupted station operation over a long period of years in order that a continuous record, as well as a maximum range of conditions may be observed. These data among other uses, are essential to the proper design, operation and maintenance of navigation, flood-control, and multiple-purpose projects.

Pacific Northwest Power Projects

STATEMENT OF HON. WAYNE L. MORSE, A UNITED STATES SENATOR FROM THE STATE OF OREGON

ALBENI FALLS AND M'NARY DAM PROJECTS, WASHINGTON

Chairman McKellar. We shall be very glad to hear from Senator Morse, of Oregon.

Senator Morse. Mr. Chairman and members of the committee, I very much appreciate the opportunity to express my support of the Pacific Northwest power-supply program which you are now considering. I heartily endorse the views of my colleagues from the States of Oregon, Washington, and Idaho and of the representatives of public and private power agencies regarding the need of the McNary, Chief Joseph, Albeni Falls, The Dalles, and Ice Harbor Dams.

I do not wish to be critical of the members of the House of Representatives Appropriation Committee, but I do not believe that they were properly informed as to the drastic impact of the reduction in funds that they recommended. Chief Joseph Dam, McNary Dam, and Albeni Falls Dam are under construction. I mention Chief Joseph at this point only to emphasize its need since the requested funds for that project were allowed.

Of equal or greater importance at this time are the Albeni Falls and McNary projects. Albeni Falls is important because the water stored in its reservoir will firm up a large block of power at down-stream plants and because being a comparatively small project it can be completed rapidly. This project was last year considered of sufficient importance that supplemental funds were provided to begin its construction. $2,900,000 were appropriated in fiscal year 1951 for this purpose. The Corps of Engineers have requested an additional $10,000,000 for fiscal year 1952 which will permit construction to proceed at a rate so that the storage at Albeni Falls will be available before the winter period of 1952–53, which period will be one of the most critical that we have experienced. Albeni Falls water will provide an additional 110,000 kilowatts at existing plants and this power will be available during a period when 596,000 kilowatts of the regional power load is being supplied on an interruptible basis, with the firm power from Albeni Falls included. If Albeni Falls is not permitted to go ahead on schedule the firm power deficit becomes 706,000 kilowatts in 1952–53.

HOUSE ACTION, M'NARY DAM, WASH.

Funds for McNary Dam were reduced by $6,900,000 by the House of Representatives. This means a year's delay in completion of the

project at a time when the region cannot stand such a delay. McNary Dam will be the first large power producer to come into operation in the near future. It is presently scheduled for completion in December 1953 with additional generators planned for installation at a rate of 4 a year until a total of 14 generators are installed.

On the basis of present schedules of construction the region faces a firm power deficit of 600,000 kilowatts in 1951–52, 596,000 kilowatts in 1952-53, 447,000 kilowatts in 1953–54, 281,000 kilowatts in 1954–55. If the reductions are permitted to stand, these figures become 600,000 kilowatts in 1951–52, 706,000 kilowatts in 1952–53, 670,000 kilowatts in 1953–54, 733,000 kilowatts in 1954-55, and these figures do not include 90,000 kilowatts in 1952–53 and 120,000 kilowatts in 1953–54 for the production of aluminum in equipment already installed and which would be in operation if power were available. Equipment to produce this additional amount of aluminum is being installed for operation on a few-months-a-year basis because power will be available to serve these loads only if better than median water conditions prevail.

Nor is the picture any better if you look beyond 1954–55. For this reason the President included in his budget a request for funds for two new starts, The Dalles and Ice Harbor. Both of these projects must be started immediately if we are to see any prospect of an end to the present power shortage. The Dalles Dam will have an installed capacity when complete of 980,000 kilowatts and, if started immediately, can begin operation in November 1956. It would be complete in November 1959, with four 70,000-kilowatt units being installed each year between these two dates. It is a most important plant in the program because of its location close to much of the major loads and because of its contribution to the power requirements of the area.

ICE HARBOR DAM PROJECT, WASHINGTON

Ice Harbor Dam is equally important. Its installed capacity will be 260,000 kilowatts and if started immediately can come into operation in December 1955 and be completed by August of 1956. This plant, in addition to its over-all contribution to the power requirements, is geographically located to improve the reliability of power service to the great Hanford project which must have an extremely reliable power supply.

Even including these two projects in the program as scheduled there will be in 1956–57 a firm power deficit of 748,000 kilowatts and in 1957–58, 924,000 kilowatts.

Gentlemen, these figures are startling. Their entire significance will probably not be completely understood until a minimum water year occurs in the Northwest region which will require the curtailment of power service in the amounts I have stated, resulting in impairment of the national defense effort, extreme hardship, unemployment, and generally drastic effects on the regional and national economy.

I should like to point out that the Pacific Northwest has not shirked its duty in the present national emergency. Every effort is being strained to provide for the needs of national defense. Forty percent of the present power supply goes into the production of aluminum. Power is also being made available for the production of magnesium, phosphorus, chlorine, and other important materials of

a critical nature. The Northwest is ideally situated for the production of these materials and it has accepted the role assigned it in the national defense picture. In addition there are Army bases, Air Force bases, and Navy shipyards and other important defense activities. If power curtailment becomes necessary, these defense activities will suffer along with all other activities of the region and this cannot be permitted.

Electric power is the motive force behind every activity in our Nation. It is even more so in the Pacific Northwest because in the distribution of natural resources Mother Nature chose to endow the Northwest with the greatest hydroelectric potential in the world in lieu of supplies of oil, gas, and coal. We have neither oil nor gas and only minor amounts of coal. Hydroelectric power, therefore, is our only energy base and it is of the utmost importance not only to the region itself but to the entire Nation, that the resources we have to be exploited to the maximum degree and in the shortest time reasonably possible. Such exploitation has been planned for but the plan has not been permitted to proceed as scheduled because of lack of sufficient funds to permit such orderly procedure. Fortunately we have had adequate amounts of water in the past few years for the full utilization of the power equipment that was available, but to expect such water supplies to be available each year ad infinitum is frankly pushing our luck too far. We are going to have a minimum water year. We can only hope and pray that it does not come during the next 2 years when there is little that we could do about it. We can do something about it in subsequent years if we move immediately to bring new power producers into operation.

NEED FOR POWER PROJECTS EMPHASIZED

I should also like to emphasize the fact that the appropriations that are requested are of a completely different nature than those required for normal governmental operation. This point has been mentioned many times before but it cannot be said too many times that all moneys appropriated are merely a loan which will be repaid with interest. This is only a minor part. By supporting the regional economy in this way the general tax base of the region becomes doubled and trebled so that the returns to the Nation are many times the amounts expended for the construction of these power projects. If the money were never returned it still would be a most lucrative investment for the Nation. However, it is returned and it is returned with interest.

Certainly it must be realized that the country is saving nothing by cutting off the few millions required for these power projects. It saves nothing but actually will represent a great loss. I should point out that by delaying McNary 1 year the revenue loss over the 1954–55 period would be approximately $5½ million which is nearly equal to the reduction of $6,900,000 that has been made in the funds for this project. That, gentlemen, is not economy.

The Federal Government has a definite public utility responsibility in the Pacific Northwest. At the present time it supplies more than half of the power consumed in the region. Having this responsibility the Government must live up to it. I should also like to emphasize the fact which has been so ably presented to you by others that the

non-Federal utilities have not been backward about spending their money to enhance the power resource picture of the region. At the present time they have active plans to add a million kilowatts to the regional supply and stand ready to add another one-half million as soon as proper clearances can be obtained. The local people are doing all that they can to help themselves. The Federal Government must therefore do its part to match the effort of the region itself.

RESTORATIONS REQUESTED

I honestly urge you gentlemen to restore the complete budget estimates for McNary, Albeni Falls, The Dalles, and Ice Harbor.

Thank you, Mr. Chairman.

Chairman McKELLAR. I have received a letter from Mr. Edgar W. Smith, president of the Portland, Oreg., Chamber of Commerce, requesting the restoration of funds for projects in his area. The letter will be placed in the record at this point.

(The letter referred to is as follows:)

PORTLAND CHAMBER OF COMMERCE,
Portland, Oreg., June 29, 1951.

Hon. KENNETH MCKELLAR,
Chairman, Senate Appropriations Committee,
Senate Office Building, Washington, D. C.

DEAR SENATOR MCKELLAR: Our organization is vitally concerned with certain reductions made in the civil-works-functions appropriations of the Army engineers as passed by the House in H. R. 4386. We are particularly interested in the restoration of funds for the following three vitally needed projects:

M'NARY DAM PROJECT

Unless this project receives the full amount requested of $42,900,000, completion of this project will be delayed one full calendar year, making power available in December of 1954 instead of December 1953. It is urged that the Senate Appropriations Committee restore the cut of $6,900,000.

The project has now reached a critical stage of construction and a delay in one portion of the work would cause delays in other phases of the schedule and put the entire project behind time. Construction of levees, acquisition of rights-of-way, and relocation work must be completed prior to raising the pool. It would be impossible, therefore, to reduce funds for these items in order to permit construction to continue on the powerhouse and spillway. Similarly, contracts for equipment to be used in the powerhouse must continue since they must be available when construction of the powerhouse and spillway reach the stage where they are required.

As McNary Dam is the largest power project nearing completion in the Pacific Northwest, it is vital that construction not be curtailed at this time.

ALBENI FALLS PROJECT

Complete elmination of the $10,000,000 requested for the Albeni Falls project seems to us an unsound economy gesture. Although this new dam started last year will only have a power potential of 42,600 kilowatts, it has tremendous value as a water-regulating project. Its water-storage capacity will make possible generation of 162,000 kilowatts of additional power by down-stream plants such as Grand Coulee and Bonneville Dams. This project represents the quickest source of new power in the entire Pacific Northwest.

DEXTER REREGULATING DAM

The elimination of the $1,300,000 requested for this project by the House seems illogical. There is little point in building the power dam at the Lookout Point project for which $15,000,000 was allocated for continuation of construction, unless funds for the reregulating dam are provided to make a completely integrated project.

You will note that our interest in these matters is limited strictly to those projects which we feel are of the most vital importance to the area and can contribute to the immediate solution of our critical power shortage. We fully realize the need for economy in operation of the Federal Government and are in complete agreement with the need for limiting appropriations to only those projects which will pay out over their estimated life. We also fully realize that there are additional projects in this area which must eventually be built to keep up with the growth of this territory. However, it is our opinion that if the restoration of appropriations is made on these three projects mentioned herein, the power and defense needs of the area will be met for the immediate future.

Very truly yours,

E. W. SMITH, *President.*

Chairman MCKELLAR. The committee will now stand in recess until 10:30 tomorrow morning.

(Whereupon, at 2:15 p. m., Wednesday, July 11, 1951, the hearing was recessed until 10:30 a. m., Thursday, July 12, 1951.)